Supreme Court, U.S.
FILED
MAR 9 2015
OFFICE OF THE CLERK

No. 14-7955

IN THE

Supreme Court of the United States

RICHARD E. GLOSSIP, ET AL.,
Petitioners,

v.

KEVIN J. GROSS, ET AL.,
Respondents.

On Writ of Certiorari to the United States Court of Appeals for the Tenth Circuit

JOINT APPENDIX – VOLUME I

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March 9, 2015

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CERTIORARI GRANTED: JAN. 23, 2015

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UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF OKLAHOMA
OKLAHOMA CITY

5:14-cv-00665-F

WARNER, ET AL.,

v.

GROSS, ET AL.,

RELEVANT DOCKET ENTRIES

DATE	NO.	PROCEEDINGS
06/25/2014	1	COMPLAINT against All Defendants filed by All Plaintiffs. (Attachments: # 1 Attachment 1 – List of Plaintiffs, # 2 Attachment 2 – List of Plaintiffs Attorneys, # 3 Exhibit 3 – List of Defendants, # 4 Civil Cover Sheet)(cpp) (Entered: 06/25/2014)
	* * * *	
07/16/2014	40	MOTION to Dismiss *and Brief in Support* by Steve Burrage, Kevin J Gross, Gene Haynes, Frazier Henke, Linda K Neal, Michael W Roach, Earnest D Ware. (Attachments: # 1 Exhibit Executive Order 2014–11, # 2 Exhibit Executive Order

DATE	NO.	PROCEEDINGS
		2014–10, # 3 Exhibit Death Row Report, # 4 Exhibit OSP–040401–01, # 5 Attachment Benevides v City of OKC (unpubished case), # 6 Attachment Lockett v Evans (unpublished case))(Hadden, John) (Entered: 07/16/2014)
07/16/2014	41	ANSWER to Complaint by Robert C Patton, Anita K Trammell.(Hadden, John) (Entered: 07/16/2014)
07/16/2014	42	MOTION to Stay Case *and Brief in Support* by Robert C Patton, Anita K Trammell. (Attachments: # 1 Exhibit Death Row Report, # 2 Exhibit Executive Order 2014–11, #3 Exhibit Executive Order 2014–10)(Hadden, John) (Entered: 07/16/2014)
	*	* * *
08/06/2014	45	RESPONSE to Motion re 42 MOTION to Stay Case *and Brief in Support*, 40 MOTION to Dismiss *and Brief in Support* filed by All Plaintiffs. (Attachments: # 1 Exhibit 1) Board of Corrections Policy P–040100, # 2 Exhibit 2) Dept of Corr Operating Policy P–040301, # 3 Exhibit 3) OSP Policy

DATE	NO.	PROCEEDINGS
		OSP–040301, # 4 Exhibit 4) Addendum to OSP–040301, # 5 Exhibit 5) BOC Minutes 5–14–10, # 6 Exhibit 6) BOC Minutes 6–18–10, # 7 Exhibit 7) BOC Minutes 10–22–10, # 8 Exhibit 8) BOC Minutes 10–21–11, # 9 Exhibit 9) BOC Minutes 5–1–14, # 10 Exhibit 10) BOC Minutes 6–5–14, # 11 Exhibit 11) BOC Minutes 4–25–13, # 12 Exhibit 12) BOC Minutes 4–3–14)(Ghezzi, Patti) (Entered: 08/06/2014)
8/12/2014	46	ORDER Setting Hearing on 42 MOTION to Stay Case *and Brief in Support*: Motion Hearing set for 9/18/2014 09:00 AM in Courtroom 305 before Honorable Stephen P. Friot (as fully set out in this order). Signed by Honorable Stephen P. Friot on 8/12/14. (llg) (Entered: 08/12/2014)
8/13/2014	47	REPLY to Response to Motion re 40 MOTION to Dismiss *and Brief in Support*, 42 MOTION to Stay Case *and Brief in Support* filed by Steve Burrage, Kevin J Gross, Gene Haynes, Frazier Henke, Linda K Neal, Robert C Patton, Michael W Roach, Anita K Trammell Earnest D Ware.

DATE	NO.	PROCEEDINGS
		(Hadden, John) (Entered: 08/13/2014)
09/09/2014	48	ORDER. Ct notes that a report entitled "The Execution of Clayton Lockett," Case No. 14–0189SI, has been rendered by Okla DPS. To facilitate the ct's consideration of, among other things, the mtns that are now pndg in this action (&to facilitate any necessary consideration of the matter by a reviewing ct), dfts Patton &Trammell are DIRECTED to file a copy of that report in this action by 9/26/14. That filing shall be accompanied by a representation, by counsel for dfts, as to whether dfts Patton or Trammell believe that Part III of the report (pp. 8–25) contains any materially incorrect factual stmts. If there are any such stmts believed by dfts Patton or Trammell to be materially incorrect, dfts' filing shall itemize them, &may provide such addl explanation as those dfts shall consider to be appropriate or advisable. Signed by Honorable Stephen P. Friot on 9/9/14. (llg) (Entered: 09/09/2014)

DATE	NO.	PROCEEDINGS
09/16/2014	49	RESPONSE TO ORDER TO SHOW CAUSE filed by All Defendants. (Attachments: # 1 Exhibit DPS Report)(Hadden, John) (Entered: 09/16/2014)
09/18/2014	50	Minute Order. Proceedings held before Honorable Stephen P. Friot: Motion Hearing held on 9/18/2014. 42 MOTION to Stay Case *and Brief in Support* filed by Robert C Patton, Anita K Trammell is DENIED. (Court Reporter Jeanne Ring.) (llg) (Entered: 09/18/2014)
	*	* * *
09/30/2014	54	ORDER denying 40 Defendants' Motion to Dismiss. Signed by Honorable Stephen P. Friot on 9/30/14. (llg) (Entered: 09/30/2014)
10/01/2014	55	NOTICE (other) by Oklahoma Department of Corrections (Attachments: # 1 Exhibit OP–040301 – Execution of Offenders Sentenced to Death) (Hadden, John) (Entered: 10/01/2014)
10/08/2014	56	ENTER ORDER. Status Conference set for 10/15/2014 01:30 PM in Chambers before Honorable Stephen P. Friot. Entered at the direction of

DATE	NO.	PROCEEDINGS
		Honorable Stephen P. Friot on 10/8/14. (llg) (Entered: 10/08/2014)
	*	* * *
10/10/2014	58	*BRIEF IN SUPPORT* re 56 Order, Set Hearings *Plaintiffs' Memorandum of Law* by All Plaintiffs. (Attachments: # 1 Exhibit 1) Aff of Anita Trammell)(Ghezzi, Patti) (Entered: 10/10/2014)
10/10/2014	59	SECOND MOTION to Dismiss *and Brief in Support* by Steve Burrage, Gene Haynes, Frazier Henke, Linda K Neal, Robert C Patton, Michael W Roach, Anita K Trammell, Earnest D Ware. (Hadden, John) (Entered: 10/10/2014)
10/10/2014	60	ANSWER to Complaint by Steve Burrage, Kevin J Gross, Gene Haynes, Frazier Henke, Linda K Neal, Robert C Patton, Michael W Roach, Anita K Trammell, Earnest D Ware.(Hadden, John) (Entered: 10/10/2014)
	*	* * *
10/14/2014	64	MOTION for Protective Order *and Brief in Support* by Steve Burrage, Kevin J Gross, Gene Haynes, Frazier Henke, Linda

DATE	NO.	PROCEEDINGS
		K Neal, Robert C Patton, Michael W Roach, Anita K Trammell, Earnest D Ware. (Attachments: # 1 Exhibit OP–060212 – Maintenance &Access of Offender Records, # 2 Exhibit OP–140108 – Privacy of Protected Health Information, # 3 Exhibit Proposed Protective Order, # 4 Exhibit Apothoecarry Email, # 5 Exhibit Complaint in Taylor v. Apothocare Shoppe, # 6 Exhibit Woodlands Letter) (Stewart, Aaron) (Entered: 10/14/2014)
10/15/2014	65	MOTION for Contempt *and Other Relief* by All Plaintiffs. (Attachments: # 1 Exhibit Subpoena 9–23–14, # 2 Exhibit Letter to DPS 5–23–14, # 3 Exhibit Letter of Objection) (Ghezzi, Patti) (Entered: 10/15/2014)
	*	* * * *
10/21/2014	68	RESPONSE in Opposition re 64 MOTION for Protective Order *and Brief in Support* filed by All Plaintiffs. (Attachments: # 1 Exhibit Opinion, # 2 Exhibit Protective Order, # 3 Exhibit Protective Order)(Ghezzi, Patti) (Entered: 10/21/2014)

DATE	NO.	PROCEEDINGS
	*	* * *
10/29/2014	74	SUPPLEMENTAL BRIEF IN SUPPORT OF MOTION for Protective Order *and Brief in Support* by Steve Burrage, Kevin J Gross, Gene Haynes, Frazier Henke, Linda K Neal, Robert C Patton, Michael W Roach, Anita K Trammell, Earnest D Ware. (Attachments: # 1 Exhibit Plaintiffs' Requests for Production, # 2 Exhibit Plaintiff's 1st Set of Interrogatories to Defendant Trammell, # 3 Exhibit Death Row Statistics)(Hadden, John) Modified on 10/30/2014 (llg). (Entered: 10/29/2014)
	*	* * *
10/31/2014	75	AMENDED COMPLAINT against All Defendants filed by All Plaintiffs.(Ghezzi, Patti) (Entered: 10/31/2014)
10/31/2014	76	RESPONSE to Motion re 59 SECOND MOTION to Dismiss *and Brief in Support* filed by All Plaintiffs. (Ghezzi, Patti) (Entered: 10/31/2014)
11/03/2014	77	ORDER Setting Hearing on 64 Defendants' MOTION for Protective Order *and Brief in Support*, 65 Plaintiffs'

DATE	NO.	PROCEEDINGS
		MOTION for Contempt *and Other Relief*, 66 Plaintiffs' MOTION for Contempt *and Other Relief*: Motion Hearing set for 11/13/2014 01:30 PM in Courtroom 305 before Honorable Stephen P. Friot. Signed by Honorable Stephen P. Friot on 11/3/14. (llg) (Entered: 11/03/2014)
11/03/2014	78	ORDER striking as moot 59 Defendants' Second Motion to Dismiss, based on the filing of the Amended Complaint. Signed by Honorable Stephen P. Friot on 11/3/14. (llg) (Entered: 11/03/2014)
11/04/2014	79	PRELIMINARY SCHEDULING ORDER. Any mtn for preliminary injunction shall be filed by 11/10/14. A mtn for preliminary injunction filed after that date may be stricken. The mtn need not be supported by a brief, because the court will, if a mtn for preliminary injunction is timely filed, enter a scheduling order which will include a provision for the filing of trial briefs &proposed findings of fact &conclusions of law in advance of the hrg on the mtn for preliminary injunction.

DATE	NO.	PROCEEDINGS
		However, the mtn for preliminary injunction must state precisely &in detail the nature & scope of the preliminary injunctive relief sought. Signed by Honorable Stephen P. Friot on 11/4/14. (llg) (Entered: 11/04/2014)
	*	* * *
11/05/2014	82	RESPONSE in Opposition re 74 SUPPLEMENTAL MOTION for Protective Order *and Brief in Support* filed by All Plaintiffs. (Ghezzi, Patti) (Entered: 11/05/2014)
	*	* * *
11/05/2014	86	RESPONSE to Motion re 65 MOTION for Contempt *and Other Relief* filed by Oklahoma State of. (Krise, Stephen) (Entered: 11/05/2014)
	*	* * *
11/05/2014	87	JOINT MOTION for Protective Order by Steve Burrage, Kevin J Gross, Gene Haynes, Frazier Henke, Linda K Neal, Robert C Patton, Michael W Roach, Anita K Trammell, Earnest D Ware. (Stewart, Aaron) (Entered: 11/05/2014)

DATE	NO.	PROCEEDINGS
11/06/2014	88	SCHEDULING ORDER re PRELIMINARY INJUNCTION: Pla–Dft preliminary witness &exhibit lists &copies of exhibits to opposing counsel due 11/14/14; Pla disclose expert testimony by 11/26/14; Dft disclose expert testimony by 12/2/14; Pla–Dft final witness &exhibit lists &copies of addl exhibits to opposing counsel due 12/8/14; Discovery completion 12/10/14; Pla–Dft Proposed Findings of Fact and Conclusions due 12/12/14; Pla–Dft trial briefs due 12/12/14; Pretrial Conference 12/15/2014 at 01:30 PM; Hearing on application for preliminary injunction Dec. 17–19, 2014, at 09:00 AM. Signed by Honorable Stephen P. Friot on 11/6/14. (llg) (Entered: 11/06/2014)
	* * * *	
11/06/2014	90	AGREED PROTECTIVE ORDER. Signed by Honorable Stephen P. Friot on 11/6/14. (llg) (Entered: 11/06/2014)
	* * * *	
11/10/2014	92	MOTION for Preliminary Injunction by Benjamin R Cole,

DATE	NO.	PROCEEDINGS
		Richard E Glossip, John M Grant, Charles F Warner. (Ghezzi, Patti) (Entered: 11/10/2014)
11/13/2014	93	Minute Order. Proceedings held before Honorable Stephen P. Friot: Motion Hearing held on 11/13/2014. 65 MOTION for Contempt *and Other Relief* filed by Emmanuel A Littlejohn, James A Coddington, Nicholas A Davis, Tremane Wood, Wendell A Grissom, Richard S Fairchild, Phillip D Hancock, Kendrick A Simpson, Carlos Cuesta–Rodriguez, Julius D Jones, John M Grant, Kevin R Underwood, James D Pavatt, Brenda E Andrew, Alfred B Mitchell, Shelton D Jackson, Charles F Warner, Raymond E Johnson, Benjamin R Cole, Richard E Glossip, Marlon D Harmon is DENIED IN PART and GRANTED IN PART, as set out on the minute sheet & on the record. Status Conference set for 11/24/2014 09:00 AM in Courtroom 305 before Honorable Stephen P. Friot for the purpose of (i) ascertaining the status of the Commissioner's compliance with this order, &(ii) addressing the arrangements

DATE	NO.	PROCEEDINGS
		for the production of digitally stored emails. 64 MOTION for Protective Order *and Brief in Support* filed by Linda K Neal, Robert C Patton, Michael W Roach, Gene Haynes, Anita K Trammell, Earnest D Ware, Steve Burrage, Frazier Henke, Kevin J Gross is rendered MOOT IN PART, GRANTED IN PART and DENIED IN PART, as set out on the minute sheet &on the record. (Court Reporter Tracy Washbourne.) (llg) (Entered: 11/14/2014)
11/14/2014	94	ORDER memorializing the court's mandatory and prohibitory orders entered at 11/13/14 motion hearing re 64 MOTION for Protective Order *and Brief in Support*, 65 MOTION for Contempt *and Other Relief*. Follows oral order of 11/13/14. Signed by Honorable Stephen P. Friot on 11/14/14. (llg) (Entered: 11/14/2014)
	*	* * *
11/14/2014	96	ANSWER to 75 Amended Complaint by Steve Burrage, Kevin J Gross, Gene Haynes, Frazier Henke, Linda K Neal, Robert C Patton, Michael

DATE	NO.	PROCEEDINGS
		W Roach, Anita K Trammell.(Stewart, Aaron) (Entered: 11/14/2014)
11/14/2014	97	MOTION to Dismiss *Plaintiffs' Amended Complaint and Brief in Support* by Kevin J Gross, Gene Haynes, Frazier Henke, Linda K Neal, Robert C Patton, Michael W Roach, Anita K Trammell, Earnest D Ware. (Attachments: # 1 Exhibit Order Dismissing – Lockett v. Patton –O–2014–361, # 2 Exhibit Petition in Lockett v Patton – CV–14–637)(Stewart, Aaron) (Entered: 11/14/2014)
11/14/2014	98	Exhibit List / Witness List (*Preliminary*) by Defendants Steve Burrage, Kevin J Gross, Gene Haynes, Frazier Henke, Linda K Neal, Robert C Patton, Michael W Roach, Anita K Trammell, Earnest D Ware. (Stewart, Aaron) (Entered: 11/14/2014)
11/14/2014	99	Exhibit List / Witness List *Preliminary* by Plaintiffs Benjamin R Cole, Richard E Glossip, John M Grant, Charles F Warner (Ghezzi, Patti) (Entered: 11/14/2014)

* * * *

DATE	NO.	PROCEEDINGS
12/01/2014	117	RESPONSE to Motion re 92 MOTION for Preliminary Injunction filed by Steve Burrage, Kevin J Gross, Gene Haynes, Frazier Henke, Linda K Neal, Robert C Patton, Michael W Roach, Anita K Trammell, Earnest D Ware. (Attachments: # 1 Exhibit Attachment D to OP–040301, # 2 Exhibit OP–040301, # 3 Attachment Osborn v. Shillinger (unpublished table decision)) (Stewart, Aaron) (Entered: 12/01/2014)
	*	* * *
12/08/2014	128	Exhibit List / Witness List (*Final*) by Defendants Steve Burrage, Kevin J Gross, Gene Haynes, Frazier Henke, Linda K Neal, Robert C Patton, Michael W Roach, Anita K Trammell, Earnest D Ware. (Stewart, Aaron) (Entered: 12/08/2014)
12/08/2014	129	Exhibit List by Plaintiffs Brenda E Andrew, James A Coddington, Benjamin R Cole, Carlos Cuesta–Rodriguez, Nicholas A Davis, Richard S Fairchild, Richard E Glossip, John M Grant, Wendell A Grissom, Phillip D Hancock, Marlon D Harmon, Shelton D

DATE	NO.	PROCEEDINGS
		Jackson, Raymond E Johnson, Julius D Jones, Emmanuel A Littlejohn, Alfred B Mitchell, James D Pavatt, Kendrick A Simpson, Kevin R Underwood, Charles F Warner, Tremane Wood. (Ghezzi, Patti) (Entered: 12/08/2014)
12/08/2014	130	Witness List by Plaintiffs Brenda E Andrew, James A Coddington, Benjamin R Cole, Carlos Cuesta–Rodriguez, Nicholas A Davis, Richard S Fairchild, Richard E Glossip, John M Grant, Wendell A Grissom, Phillip D Hancock, Marlon D Harmon, Shelton D Jackson, Raymond E Johnson, Julius D Jones, Emmanuel A Littlejohn, Alfred B Mitchell, James D Pavatt, Kendrick A Simpson, Kevin R Underwood, Charles F Warner, Tremane Wood. (Ghezzi, Patti) (Entered: 12/08/2014)
	*	* * *
12/09/2014	141	SEALED DOCUMENT by Benjamin R Cole, Carlos Cuesta–Rodriguez, Nicholas A Davis, Richard S Fairchild, John M Grant, Wendell A Grissom, Marlon D Harmon, Raymond E Johnson,

DATE	NO.	PROCEEDINGS
		Emmanuel A Littlejohn, James D Pavatt, Kendrick A Simpson, Kevin R Underwood(Re: 139 Notice of Conventional Filing)(Rose, Kathy) (Entered: 12/10/2014)
	*	* * *
12/12/2014	155	ORDER denying 97 Motion to Dismiss. After careful consideration, defendants motion to dismiss is DENIED without prejudice to the possible re–urging of some of defendants arguments at another stage, if and when appropriate, with arguments carefully tailored to the evidence as it standsat that time. Signed by Honorable Stephen P. Friot on 12/12/14. (kr) (Entered: 12/12/2014)
	*	* * *
12/12/2014	157	Proposed Findings of Fact by Defendants Steve Burrage, Kevin J Gross, Gene Haynes, Frazier Henke, Linda K Neal, Robert C Patton, Michael W Roach, Anita K Trammell, Earnest D Ware. (Stewart, Aaron) (Entered: 12/12/2014)
12/12/2014	158	TRIAL BRIEF by Defendants Steve Burrage, Kevin J Gross, Gene Haynes, Frazier Henke,

DATE	NO.	PROCEEDINGS
		Linda K Neal, Robert C Patton, Michael W Roach, Anita K Trammell, Earnest D Ware. (Stewart, Aaron) (Entered: 12/12/2014)
12/12/2014	159	Proposed Findings of Fact by Plaintiffs Brenda E Andrew, James A Coddington, Benjamin R Cole, Carlos Cuesta-Rodriguez, Nicholas A Davis, Richard S Fairchild, Richard E Glossip, John M Grant, Wendell A Grissom, Phillip D Hancock, Marlon D Harmon, Shelton D Jackson, Raymond E Johnson, Julius D Jones, Emmanuel A Littlejohn, Alfred B Mitchell, James D Pavatt, Kendrick A Simpson, Kevin R Underwood, Charles F Warner, Tremane Wood. (Ghezzi, Patti) (Entered: 12/12/2014)
12/12/2014	160	TRIAL BRIEF *Preliminary Hearing Brief* by Plaintiffs Brenda E Andrew, James A Coddington, Benjamin R Cole, Carlos Cuesta-Rodriguez, Nicholas A Davis, Richard S Fairchild, Richard E Glossip, John M Grant, Wendell A Grissom, Phillip D Hancock, Marlon D Harmon, Shelton D Jackson, Raymond E Johnson,

DATE	NO.	PROCEEDINGS
		Julius D Jones, Emmanuel A Littlejohn, Alfred B Mitchell, James D Pavatt, Kendrick A Simpson, Kevin R Underwood, Charles F Warner, Tremane Wood. (Ghezzi, Patti) (Entered: 12/12/2014)
12/15/2014	161	MOTION in Limine *and Brief in Support* by All Plaintiffs. (Ghezzi, Patti) (Entered: 12/15/2014)
12/15/2014	162	Minute Order. Proceedings held before Honorable Stephen P. Friot: Pretrial Conference re Preliminary Injunction Hearing held on 12/15/2014. (Court Reporter Tracy Washbourne.) (llg) (Entered: 12/15/2014)
	*	* * *
12/19/2014	170	Minute Order. Proceedings held before Honorable Stephen P. Friot: Preliminary Injunction Hearing held on 12/17/2014, 12/18/2014 and 12/19/2014. 92 MOTION for Preliminary Injunction filed by John M Grant, Charles F Warner, Benjamin R Cole, Richard E Glossip is TAKEN UNDER ADVISEMENT. As to 168 *Objection to Sequestration Order and Request for Relief* filed by

DATE	NO.	PROCEEDINGS
		Ziva Branstetter, court rules that Ms. Branstetter will be permitted to remain in the courtroom. 165 MOTION to Quash *Subpoena* filed by Stephen J Krise, Michael Thompson is STRICKEN AS MOOT. Court will rule from the bench on the motion for preliminary injunction at 3:00 PM on 12/22/2014 in Courtroom 305. (Court Reporter Tracy Washbourne.) (llg) (Entered: 12/22/2014)
	*	* * *
12/22/2014	172	Minute Order. Proceedings held before Honorable Stephen P. Friot: Preliminary Injunction Hearing completed on 12/22/2014. 161 Plaintiffs' MOTION in Limine *and Brief in Support* as to the testimony of Dr. R. Lee Evans is DENIED. 92 MOTION for Preliminary Injunction filed by John M Grant, Charles F Warner, Benjamin R Cole, Richard E Glossip is without merit and is in all things DENIED. Brief written order to follow. Parties' exhibits are WITHDRAWN. (Court Reporter Tracy

DATE	NO.	PROCEEDINGS
		Washbourne.) (llg) (Entered: 12/22/2014)
12/22/2014	173	ORDER denying 92 MOTION for Preliminary Injunction. Follows oral order of 12/22/14. Signed by Honorable Stephen P. Friot on 12/22/14. (llg) (Entered: 12/22/2014)
12/23/2014	174	MOTION to Appoint Counsel by All Plaintiffs. (Ghezzi, Patti) (Entered: 12/23/2014)
	*	* * *
12/23/2014	176	NOTICE OF APPEAL as to 173 Order - Written Order Following Oral Order on Motion by Benjamin R Cole, Richard E Glossip, John M Grant, Charles F Warner. (Ghezzi, Patti) (Entered: 12/23/2014)
12/23/2014	177	ORDER granting 174 Motion to Appoint Counsel. Signed by Honorable Stephen P. Friot on 12/23/14. (kr) (Entered: 12/23/2014)
	*	* * *

UNITED STATES COURT OF APPEALS
FOR THE TENTH CIRCUIT

14-6244

WARNER, ET AL.,

v.

GROSS, ET AL.,

RELEVANT DOCKET ENTRIES

DATE	PROCEEDINGS
*	* * *
12/23/2014	[10235537] Prisoner case docketed. DATE RECEIVED: 12/23/2014. Docketing statement due 01/06/2015 for Charles F. Warner et al. Transcript order form due 01/06/2015 for Randy A. Bauman and Patti Palmer Ghezzi. Notice of appearance due on 01/06/2015 for Steve Burrage, Benjamin R. Cole, Edward Evans, Warden, Richard E. Glossip, John M. Grant, Kevin J. Gross, Gene Haynes, Frazier Henke, Linda K. Neal, Robert C. Patton, Michael W. Roach, Anita K.

DATE	NO.	PROCEEDINGS
		Trammell, Earnest D. Ware and Charles F. Warner. A/Pet designation of record due 01/06/2015 for Charles F. Warner et al. [14-6244]
12/23/2014		[10235554] Motion filed by Appellants Benjamin R. Cole, Richard E. Glossip and John M. Grant to expedite case. Served on: 12/23/2014. Manner of service: email. This pleading complies with all required (privacy, paper copy and virus) certifications: Yes. [14-6244] PPG
12/24/2014		[10235606] Fee paid. Date paid in District Court on 12/24/2014. [14-6244]
12/24/2014		[10235635] Order filed by Clerk of the Court granting appellants' motion to expedite case. Appellant's brief due on 12/31/2014. Appellees' brief due 01/06/2015. Appellants' optional reply brief due 01/08/2015. Served on 12/24/2014. [14-6244]
	* * * *	
12/24/2014		[10235716] Designation of record filed by Appellants Benjamin R. Cole, Richard E. Glossip, John M. Grant and Charles F. Warner. Served on

DATE	NO.	PROCEEDINGS
		12/24/2014. Manner of Service: email. [14-6244] PPG
12/24/2014		[10235728] Motion filed by Appellants Benjamin R. Cole, Richard E. Glossip, John M. Grant and Charles F. Warner to supplement the record on appeal. Served on: 12/24/2014. Manner of service: email. This pleading complies with all required (privacy, paper copy and virus) certifications: Yes – [Edited 12/26/2014 by GH to upload attachments]. [14-6244] PPG
12/24/2014		[10235732] Record on appeal filed. No. of Volumes: 3, Comments: Vol 1- pleadings; Vol 2- sealed pleadings; Vol 3- transcripts. [14-6244]
12/26/2014		[10235740] Motion filed by Appellants Benjamin R. Cole, Richard E. Glossip, John M. Grant and Charles F. Warner to supplement the record on appeal. Served on: 12/26/2014. Manner of service: email. This pleading complies with all required (privacy, paper copy and virus) certifications: Yes. [Edited 12/26/2014 by GH to upload attachments]. [14-6244] PPG

DATE	NO.	PROCEEDINGS
12/26/2014		[10235744] Docketing statement filed by Benjamin R. Cole, Richard E. Glossip, John M. Grant and Charles F. Warner. Served on 12/26/2014. Manner of Service: email. [14-6244] PPG
12/29/2014		[10235846] Order filed by Clerk of the Court granting appellants' motions to supplement the record on appeal. The materials will be added as supplemental record volumes. Served on 12/29/2014. [14-6244]
12/29/2014		[10236282] Supplemental record on appeal filed. No. of Volumes: 31 (PLEASE NOTE: This supplemental record has been reconstituted into 31 volumes and has been redocketed). Supp. Vol. I: Exhibits 1-9, Supp. Vol. II: SEALED Exhibits 10-12, Supp. Vol. III: Exhibits 13-18, Supp. Vol. IV: SEALED Exhibits 19-26, Supp. Vol. V: Exhibits 27-33. [14-6244]
12/29/2014		[10236295] Supplemental record on appeal filed. No. of Volumes: 31 (This supplemental record was docketed in several transactions due to the size). Supp. Vol. VI: SEALED Exhibits 34-46, Supp. Vol. VII: Exhibits

DATE	NO.	PROCEEDINGS
		47-50, Supp. Vol. VIII: Exhibits 51-54, Supp. Vol. IX: SEALED Exhibit 55, Supp. Vol. X Exhibits 56-71. [14-6244]
12/29/2014		[10236308] Supplemental record on appeal filed. No. of Volumes: 31 (This supplemental record was docketed in several transactions due to the size). Supp. Vol. XI: Exhibits 72-74, Supp. Vol. XII: Exhibit 75.1.1, Supp. Vol. XIII: Exhibit 75.1.2, Supp. Vol. XIV: Exhibit 75.1.3, Supp. Vol. XV: Exhibit 75.1.4. [14-6244]
12/29/2014		[10236327] Supplemental record on appeal filed. No. of Volumes: 31 (This supplemental record was docketed in several transactions due to the size). Supp. Vol. XVI: Exhibit 75.2.1, Supp. Vol. XVII: Exhibit 75.2.2, Supp. Vol. XVIII: Exhibit 76.1, Supp. Vol. XIX: Exhibit 76.2, Supp. Vol. XX: Exhibit 76.3. [14-6244]
12/29/2014		[10236353] Supplemental record on appeal filed. No. of Volumes: 31 (This supplemental record was docketed in several transactions due to the size). Supp. Vol. XXI: Exhibit 76.4, Supp. Vol. XXII: Exhibit 77,

DATE	NO.	PROCEEDINGS
		Supp. Vol. XXIII: SEALED Exhibits 78-79, Supp. Vol. XXIV Exhibits 80-88. [14-6244]
12/29/2014		[10236361] Supplemental record on appeal filed. No. of Volumes: 31 (This supplemental record was docketed in several transactions due to the size). Supp. Vol. XXV: SEALED Exhibit 93.1.1, Supp. Vol. XXVI: SEALED Exhibit 93.1.2, Supp. Vol. XXVII: SEALED Exhibit 93.1.3, Supp. Vol. XXVIII: SEALED Exhibit 93.2.1, Supp. Vol. XXIX: SEALED Exhibit 93.2.2. [14-6244]
12/29/2014		[10236369] Supplemental record on appeal filed. No. of Volumes: 31 (This supplemental record was docketed in several transactions due to the size). Supp. Vol. XXX: Dft. Exhibits 34-35, Supp. Vol. XXXI: SEALED Exhibits 94-95. [14-6244]
	* * * *	
12/31/2014		[10236906] Appellant/Petitioner's brief filed by Benjamin R. Cole, Richard E. Glossip, John M. Grant and Charles F. Warner. 7 paper copies to be provided to the court. Served on 12/31/2014

DATE	NO.	PROCEEDINGS
		by email. Oral argument requested? Yes. This pleading complies with all required (privacy, paper copy and virus) certifications: Yes. [14-6244] [Edited 12/31/2014 by AS. Counsel indavertently submitted brief without attachments. They submitted them by email and were attached to the brief in order to cure deficiency] PPG
01/06/2015		[10237438] Motion filed by Appellees Steve Burrage, Kevin J. Gross, Gene Haynes, Frazier Henke, Linda K. Neal, Robert C. Patton, Michael W. Roach, Anita K. Trammell and Earnest D. Ware to supplement the record on appeal. Served on: 01/06/2015. Manner of service: email. This pleading complies with all required (privacy, paper copy and virus) certifications: Yes. [14-6244] -[Edited 01/06/2015 by AS to attach sealed documents to motion submitted by counsel] JDH
01/06/2015		[10237631] Order filed by Clerk of the Court granting Appellees' motion to supplement the record on appeal. Materials attached to appellees' motion will be added

DATE	NO.	PROCEEDINGS
		as a supplemental record volumes. Served on 01/06/2015. [14-6244]
01/06/2015		[10237657] Supplemental record on appeal filed. No. of Volumes: 33 (This supplemental record on was docketed in several transactions due to the size) Supp. Vol. XXXII: Exhibits 33 and 41; Supp. Vol. XXXIII: Sealed Exhibits 16-24. [14-6244]
01/06/2015		[10237782] Appellee's brief filed by Steve Burrage, Kevin J. Gross, Gene Haynes, Frazier Henke, Linda K. Neal, Robert C. Patton, Michael W. Roach, Anita K. Trammell and Earnest D. Ware. 7 paper copies to be provided to the court. Served on: 01/06/2015. Manner of service: email. Oral argument requested? No. This pleading complies with all required (privacy, paper copy and virus) certifications: Yes. [14-6244] [Edited 01/06/2015 by AS to upload substituted brief showing oral argument statement on front cover of brief] JDH
01/08/2015		[10238217] Motion filed by Appellants Benjamin R. Cole, Richard E. Glossip, John M.

DATE	NO.	PROCEEDINGS
		Grant and Charles F. Warner to supplement the record on appeal. Served on: 01/08/2015. Manner of service: email. This pleading complies with all required (privacy, paper copy and virus) certifications: Yes. [14-6244] -[Edited 01/08/2015 by AS to add transcripts counsel wishes to add as a supplemental record on appeal] PPG
01/08/2015		[10238498] Sealed motion filed by Benjamin R. Cole, Richard E. Glossip, John M. Grant and Charles F. Warner for stay of Executions Pending Appeal. Served on: 01/08/2015 Manner of service: email. This pleading complies with all required (privacy, paper copy and virus) certifications: Yes. [14-6244] PPG
01/08/2015		[10238499] Appellant/Petitioner's reply brief filed by Benjamin R. Cole, Richard E. Glossip, John M. Grant and Charles F. Warner. 7 paper copies to be provided to the court. Served on 01/08/2015. Manner of Service: email. This pleading complies with all required (privacy, paper copy and virus) certifications: Yes. [14-6244] PPG

DATE NO.	PROCEEDINGS
01/09/2015	[10238582] Sealed motion filed by Benjamin R. Cole, Richard E. Glossip, John M. Grant and Charles F. Warner for stay of Executions Pending Appeal. Served on: 01/09/2015 Manner of service: email. This pleading complies with all required (privacy, paper copy and virus) certifications: Yes. [14-6244] PPG
01/09/2015	[10238811] Order filed by Clerk of the Court granting Appellants' motion to supplement the record on appeal with the trial transcript of the district court hearing dated December 15, 2014. Served on 01/09/2015. [14-6244]
01/09/2015	[10238815] Supplemental record on appeal filed. No. of Volumes: 34. Supp. Vol XXXIV Transcripts of District Court Hearing Dated December 15, 2014. [14-6244]
01/12/2015	[10238935] Order filed by Judge Briscoe appointing the Offices of the Federal Public Defenders for the Western District of Oklahoma and the District of Arizona to represent appellants. Served on. [14-6244]

DATE	NO.	PROCEEDINGS
01/12/2015		[10238940] Affirmed; Terminated on the merits after submissions without oral hearing; Written, signed, published;. Judges Briscoe (author), Gorsuch and Matheson. Mandate to issue 2/3/2015. [14-6244] Plaintiffs' emergency motion for stay of execution pending appeal is denied. -[Edited 01/12/2015 by AS to correct typo in docket text, reformat cover letter and correct citation on page 2 of opinion]
01/12/2015		[10238944] Judgment for opinion filed. [14-6244]
01/12/2015		[10239057] Minute order filed -. (Text Only - No Attachment) Corrected Opinion filed. Citation on page 2 of opinion now shows 28 U.S.C. § 1292(a)(1) [14-6244]
01/15/2015		[10240237] Petition for writ of certiorari filed by Charles F. Warner on 01/13/2015. Supreme Court Number 14-7955. [14-6244]
01/15/2015		[10240349] Order from the US Supreme Court denying application for stay of execution of Charles Warner. Original. Served on 01/15/2015. Manner of Service: email. [14-6244]

DATE NO.	PROCEEDINGS
01/22/2015	[10241955] Minute order filed minor typographical errors in the opinion were fixed. (Text Only - No Attachment) [14-6244]
01/23/2015	[10242588] Order list from the US Supreme Court showing the grant of Certiorari dated January 23, 2015. Original only. Served on 01/23/2015. Manner of Service: email. [14-6244]
01/26/2015	[10242684] Supreme court order dated 01/23/2015 granting certiorari filed. [14-6244]
01/28/2015	[10243486] Order from the US Supreme Court granting a stay of execution for Messrs. Glossip, Grant and Cole pending final disposition of Supreme Court Case 14-7955, Glossip, et al. v. Gross, et al filed by. Original. Served on 01/28/2015. Manner of Service: email. [14-6244]
02/03/2015	[10245151] Order filed by Judges Briscoe, Gorsuch and Matheson staying execution of the mandate pending United States Supreme Court's Final Disposition. Served on 02/03/2015. [14-6244]

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF OKLAHOMA

CHARLES F. WARNER, *ET AL.*,

Plaintiffs,

v.

KEVIN J. GROSS, *ET AL.*,

Defendants.

No. CIV-14-665-F

MOTION IN LIMINE AND BRIEF IN SUPPORT

COME NOW Plaintiffs Warner, Glossip, Grant, and Cole and move to limit the testimony of Defendants' expert R. Lee Evans to his area of expertise. In support of this motion, Plaintiffs state as follows:

1. Defendants' Expert Report and attachments identify R. Lee Evans as having a Ph.D. in pharmacy and being a board certified psychiatric pharmacist. (Letter to J. Hadden from R. Evans dated Dec. 2, 2014, Defs' Bates No. 6368-6372.)

2. Dr. Evans was asked by Defendants to address the "pharmacological effects of the drugs used in the execution protocol for the State of Oklahoma." (Evans letter at 6368.) Plaintiffs do not challenge Dr. Evans' qualifications to address the pharmacological effects of drugs.

3. Dr. Evans' proposed testimony and opinion, however, extend beyond the pharmacological effects of drugs and beyond knowledge acquired in his special

discipline. Dr. Evans does not have sufficient specialized knowledge to to express any opinion or conclusion about movements of "brain dead" patients. (*See* Evans Letter at 6372)(opining on "involuntary movements"). He is unqualified to postulate regarding an offenders' movements or suggest causes for such movements. Dr. Evans has no training, education, experience or skill to reach an opinion regarding this subject. He is not qualified to offer such opinions and his unqualified opinions offer no assistance to this Court. *Kumho Tire Col, Ltd. v. Carmichael*, 526 U.S. 137 (1999); *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993).

4. Dr. Evans' proposed testimony and opinion on "involuntary movements" should also be excluded because it does not satisfy the demands of Rule 702 of the Federal Rules of Evidence. His proposed testimony and opinions are not "based upon sufficient facts or data," are not "the product of reliable principles and methods," and he has not reliably applied scientific principles and methods to the facts of this case.

5. Dr. Evans' testimony and opinion regarding "involuntary movements" is based upon the reasoning from a brief observation note published in The American Journal of Medicine from a study by Argentinian physicians regarding spontaneous and reflex movements in 107 brain dead patients.

6. Dr. Evans offers no source for his statement that "[s]ome involuntary motor movements may be observed during normal anesthesia and have been observed during execution by injection." (Evans' letter at 6372.)

When an expert's testimony and opinions are challenged under *Daubert* and *Kumho*, as they are

here, it is the proponent of the testimony who bears the burden to establish the admissibility of the pertinent evidence by a preponderance of the evidence. *Ralston v. Smith & Nephew Richards, Inc.*, 275 F.3d 965, 970, n. 4 (10th Cir. 2001). See Fed. R. Evid 702, Advisory Committee notes. This Court's gatekeeper obligations under *Daubert* and Rule 702 are set forth extensively in *Graves v. Mazda Motor Corp.*, 675 F. Supp 2d 1082, 1090-1095 (W.D. Okla. 2009), *aff'd*, 405 Fed. Appx. 296 (2010).

Wherefore, Plaintiffs request that this Court limit the testimony of Defendants' expert to evidence within his expertise and further prevent the admission of unreliable evidence that goes beyond Dr. Evans' knowledge, skill, and education.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on this 15th day of December, 2014, I electronically transmitted the foregoing document to the Clerk of Court using the ECF System for filing and transmittal of a Notice of Electronic Filing to the following ECF registrants:

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s/ Patti Palmer Ghezzi
Patti Palmer Ghezzi
Assistant Federal Public Defender
Western District of Oklahoma

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF OKLAHOMA

CHARLES F. WARNER, *et al.*,

Plaintiffs,

vs.

KEVIN J. GROSS, *et al.*,

Defendant.

Case No. CIV-14-0665-F

ORDER DENYING MOTION FOR PRELIMINARY INJUNCTION

On November 10, 2014, a motion for preliminary injunction was filed, doc. no. 92, by plaintiffs Charles Frederick Warner, Richard Eugene Glossip, John Marion Grant and Benjamin Robert Cole. The motion came on for evidentiary hearing on December 17, 18 and 19, 2014.

For the reasons stated at length on the record, pursuant to Rule 52(a)(1), Fed.R.Civ.P., the court concludes that movants have failed to establish any of the prerequisites to a grant of preliminary injunctive relief. Specifically, the court concludes that the movants have failed to establish a probability of success on the merits of any of the five claims they assert for preliminary injunction purposes, even under the relaxed standard articulated in *Kikumura v. Hurley*, 242 F.3d 950, 955 (10th Cir. 2001). The court further concludes that movants have failed to demonstrate that, absent a preliminary injunction,

they would suffer any non-speculative irreparable harm. The court further concludes that the balance of equities does not tip in movants' favor. Finally, the court concludes that entry of a preliminary injunction would not be in the public interest.

The court accordingly concludes that the motion of Charles Frederick Warner, Richard Eugene Glossip, John Marion Grant and Benjamin Robert Cole for preliminary injunction is without merit. The motion is accordingly DENIED.

Dated December 22, 2014.

/s/ Stephen P. Friot
STEPHEN P. FRIOT
UNITED STATES DISTRICT JUDGE

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF OKLAHOMA

Case No. CIV-14-665-F

CHARLES F. WARNER, *et al.*,

Plaintiffs,

vs.

KEVIN J. GROSS, *et al.*,

Defendants.

TRANSCRIPT OF COURT'S RULING BEFORE
THE HONORABLE STEPHEN P. FRIOT
UNITED STATES DISTRICT JUDGE
DECEMBER 22, 2014
3:00 P.M.

[2] APPEARANCES

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[3] (PROCEEDINGS HAD DECEMBER 22, 2014.)

THE COURT: Good afternoon. We're here in Civil 14-665, Charles Warner and others v. Kevin Gross and others, for the Court's ruling on the motion of four plaintiffs for preliminary injunction. Counsel will please give your appearances.

MS. GHEZZI: Patti Ghezzi for the plaintiffs that are represented by the Federal Public Defender's Office in the Western District.

MS. HENRICKSEN: Lanita Henricksen for Andrew, Warner, Hancock, Jackson, and Glossip.

MR. AUTRY: David Autry for James Coddington, Your Honor.

THE COURT: We have Arizona counsel present by telephone?

MS. KONRAD: Yes. Robin Konrad and Dale Baich for Plaintiff Tremane Wood.

MR. HADDEN: John Hadden for state defendants, Your Honor.

MR. STEWART: Aaron Stewart for state defendants, Your Honor.

THE COURT: I'll now make my findings of fact and conclusions of law with respect to the preliminary injunction which has be[illegible]—motion for preliminary injunction which has been filed by Plaintiffs Charles Warner, Richard Glossip, John [4] Grant, and Benjamin Cole.

The hearing on these plaintiffs' motion for preliminary injunction was held on December 17, 18, and 19, 2014. The plaintiffs were ably represented by Dale A. Baich, Robin C. Konrad, Patti P. Ghezzi, and Randy A. Bauman. The defendants were ably represented by John D. Hadden, Aaron J. Stewart, and Jeb E. Joseph. Over three full days of hearings, generating 694 pages of transcript, the plaintiffs called 14 witnesses, including several Oklahoma Department of Corrections employees, and the defendants called three witnesses.

My scheduling of the hearing on the motion for preliminary injunction, as well as my scheduling of the preparatory steps leading to the hearing was driven by the fact that these four movants are scheduled for execution beginning in the case of Charles Warner on January 15, 2015. That necessitated a rather compressed schedule. Even though the schedule was compressed, there were certain essential steps that, although unfolding on a tight time schedule, certainly could not be eliminated. As an example, it was my conclusion that the plaintiffs ought to have the benefit of discovery as thorough and searching as was possible under the circumstances. And I believe that plaintiffs have indeed had the benefit of thorough discovery.

Plaintiffs' discovery began, at least in terms of substantial discovery, with the production of thousands of pages of documents that were either turned over to the [5] Department of Public Safety or generated by the Department of Public Safety in the investigation that was conducted by that agency following the Lockett execution. That included thousands of pages of interview transcripts as well as numerous original source documents.

And before I go any further, I will say again that I applaud the diligence and professionalism of counsel on both sides. For the reasons I have described, among others, this has been, to put it mildly, a very demanding case, especially in the run-up to the three-day hearing last week. Although there were some instances in which I had to referee discovery disputes on fairly short notice, I can say without hesitation that preparation for the preliminary injunction hearing proceeded with less rancor than there would have been if counsel on both sides had not made every effort as true professionals to bring the matter to this stage with a hard focus on the merits and with minimal diversions unrelated to the merits.

I am making my findings of fact and conclusions of law in this setting, on the record, as permitted by Rule 52(a). As I said at the end of the day last Friday, I could take another five or six working days to turn out a polished 35- or 40-page order, but I am certain that the parties and their counsel would rather have those five or six days back so that they can prepare for the next stage of this litigation, which will [6] necessarily unfold between now and January 15, 2015. I will assure all concerned, however, that even though I am ruling from the bench rather than taking another five or six days to produce a formal written order, the

findings and conclusions that I'm about to express are made with all of the thought process that would ultimately go into a formal order.

Many of the matters that I'm about to address involve mixed issues of fact and law. For that reason, it is in some ways a bit artificial to speak in terms of findings of fact separately from conclusions of law. I will separate the two as much as I reasonably can. However, I am confident that the parties, as well a reviewing court, will be able to discern the difference between my factual findings and my legal conclusions. In any event, of course, to the extent that I express a legal conclusion as if it were a matter of fact, it should be regarded as a legal conclusion and vice versa.

My exceedingly capable reporter is prepared to produce a transcript of my ruling in very short order. For ease of reference by the parties and by a reviewing court, the reporter has advised me that it would be permissible for me to insert headings into the transcript before the transcript is filed. I think that would be helpful to all concerned and I will do that before the transcript is filed. I assure you, however, that because of the very nature of a ruling from the bench, I will not make any change of any kind in the record of my ruling as [7] taken by the reporter.

I'll now turn to the factual history of this matter.

FACTUAL HISTORY

Clayton Derrell Lockett, having been convicted of first degree murder and sentenced to death, was scheduled for execution at the Oklahoma State Penitentiary on April 29, 2014. The execution took place as scheduled and it achieved the intended result, the death of Clayton Lockett, but the execution was

ineptly performed in some ways, as I will discuss later in these findings.

As a result of the extraordinary events surrounding the Clayton Lockett execution, Governor Mary Fallin issued Executive Order 2014-11 on April 30, 2014, which mandated an independent investigation of the events leading up to and during the execution of Clayton Lockett. The Governor's Executive Order appointed Michael Thompson, the Secretary of Safety and Security and the Commissioner of the Department of Public Safety to lead the independent investigation process.

The Department of Public Safety investigation culminated in the issuance of a report entitled "The Execution of Clayton D. Lockett," Case Number 14-0189SI, by the Oklahoma Department of Public Safety. On September 16, 2014, that report was filed in this action as Docket Entry Number 49-1.

The DPS report contains a wealth of information, much of it favorable to the plaintiffs. The plaintiffs have asserted [8] that for their purposes there are some relevant facts that are not included in the DPS report. That is correct. An encyclopedic report on the Lockett execution would probably have run to 3- or 400 pages rather than 29 pages. But the DPS report, which resulted from a thorough investigation that was conducted with noticeable professional integrity by Captain Jason Holt, under the supervision of Commissioner of Public Safety Michael Thompson, certainly provided plaintiffs with a good starting point. By the time Captain Holt left the witness stand last Thursday, no one in this courtroom could have doubted the seriousness with which he took his assignment to lead the DPS investigation.

Meanwhile, this action was filed on June 25, 2014. As indicated by the allegations on pages 6 to 9 of the original complaint in this case, Docket Entry Number 1, the plaintiffs' original complaint in this action centered substantially on the events surrounding the execution of Clayton Lockett. The same is true of the amended complaint, Docket Entry Number 75, filed on October 31, 2014.

The amended complaint also focuses on the revised execution protocol adopted by the Oklahoma Department of Corrections, DOC Policy OP-040301, with an effective date of September 30, 2014. I will discuss that revised protocol as relevant to the issues now before the Court later in my findings.

[9] THESE FOUR PLAINTIFFS

Although the plaintiffs in this action include all or nearly all of the death row inmates in the state of Oklahoma, the matter now before the Court is the motion for preliminary injunction which was filed by four of those plaintiffs; namely, Charles Frederick Warner, Richard Eugene Glossip, John Marion Grant, and Benjamin Robert Cole. The four plaintiffs who have filed this motion for preliminary injunction have been scheduled for execution, respectively, on January 15, January 29, February 19, and March 5, 2015.

As recounted by the Oklahoma Court of Criminal Appeals at 144 P.3d 838, Charles Warner raped and murdered an 11-month-old baby girl on August 22, 1997, an assault which resulted in, among other injuries, two skull fractures including a depressed fracture and two fractures of the baby girl's left jaw.

As recounted by the Oklahoma Court of Criminal Appeals, 157 P.3d 143, on January 7, 1997, Richard Glossip hired Justin Sneed to kill Barry Van Treese,

the employer of Glossip and Sneed, which Sneed proceeded to do by bludgeoning Van Treese to death with a baseball bat.

As recounted by the Oklahoma Court of Appeals, 95 P.3d 178, on November 13, 1988, John Grant, then an inmate at the Connor Correctional Center in Hominy, Oklahoma, murdered Gay Carter, a food service supervisor at the Connor Correctional Center, by stabbing her 16 times with a shank.

[10] As recounted by the Oklahoma Court of Criminal Appeals, 164 P.3d 1089, on December 20, 2002, Benjamin Cole murdered his nine-month-old daughter, Brianna Cole, by snapping her spine in half and inflicting other fatal injuries because she would not stop crying.

All four of the moving plaintiffs have reached the end of their trial, direct review and collateral review process, which includes, in the case of Messrs. Warner and Glossip, two trials, two first degree murder convictions, and two sentences of death.

I will now address the facts surrounding the Lockett execution.

THE LOCKETT EXECUTION

Although a number of preliminary steps took place earlier in the day on April 29, 2014, and even before that day, the final sequence of events leading to the execution of Clayton Lockett began at approximately 5:22 p.m. on April 29 when Lockett was placed onto the execution table and strapped down. Earlier in the day, Lockett had twice refused visits from his attorneys. He had also cut himself twice on April 29 at "the bend of the elbow," as described by Warden Trammell. That is as page 225 of the transcript.

The execution of Clayton Lockett was the first Oklahoma execution using midazolam. The protocol called for the administration of 100 milligrams of midazolam, 40 milligrams of [11] vecuronium bromide, and 200 milliequivalents of potassium chloride. Midazolam had been added to the protocol approximately two weeks before the Lockett execution after it was determined that pentobarbital would not be available for the Lockett execution.

On April 29, before the blinds between the execution chamber and the reviewing rooms were raised, the execution team had worked for nearly an hour trying to establish intravenous access to Lockett's cardiovascular system. Postmortem examination revealed at least a dozen needle puncture marks on Lockett's body indicating at least that many attempts to establish IV access.

The first member of the execution team who was involved in securing intravenous access to Lockett's cardiovascular system was an emergency medical technician licensed as a paramedic. The paramedic attempted, without success, to establish IV access in the typical location in the crook of Lockett's left arm. Three attempts to establish IV access at that location were unsuccessful.

Next a physician member of the execution team attempted to establish IV access through Lockett's left jugular vein. Although it appeared momentarily that this attempt had been successful, that success was short-lived. At the same time, the paramedic attempted to establish IV access by way of Lockett's right arm. Three attempts to do so were [12] unsuccessful. After those unsuccessful attempts, the physician sought unsuccessfully to establish IV access through Lockett's left subclavian vein and the

paramedic attempted to establish IV access in two locations on Lockett's right foot.

The physician next attempted to establish IV access by way of Lockett's right femoral vein. The physician and the paramedic concluded that this attempt had been successful. To facilitate right femoral IV access, the physician asked for a longer catheter so that they could attempt to establish IV access through Lockett's femoral vein.

A one-and-a-quarter-inch 14-gauge angiocatheter was used for this purpose. The one-and-a-quarter-inch needle was inserted and was "positional," meaning the patency of the IV flow was dependent upon relatively precise positioning of the catheter. This one-and-one-quarter-inch catheter was taped in place. The use of the one-and-a-quarter-inch catheter was clearly inappropriate, a failure that is made all the more inexplicable by the fact that a central line IV kit was available.

After the physician and the paramedic concluded that femoral IV access had been established, Warden Trammell covered Lockett's body with a sheet. For the purpose of preserving Lockett's privacy, his genital area was covered. This was an improvident decision. From that point until it appeared that there may be a problem with intravenous flow, Lockett's genital [13] area remained covered and the IV access point could not be observed.

There was approximately a 23-minute delay in the beginning of the execution. This delay was evidently due to the difficulties in establishing acceptable IV access. The blinds were raised at approximately 6:23 p.m. After the blinds were raised, Warden Trammell

read the death warrant and Lockett was asked whether he had any last words. He had none.

The execution team began to push the midazolam into the IV manifold. Administration of the midazolam was followed by administration of the vecuronium bromide and potassium chloride, both by way of the right femoral IV access point. Confirmation of continuous IV flow was, to put it mildly, hampered by the fact that the execution team put a hemostat on the IV line and then they covered the IV injection access point with a sheet with the result that, in the words of Captain Holt at page 408 of the transcript, they had "covered the one and stopped the other," which made it impossible to confirm that the IV flow continued or even that it could continue.

At approximately 6:30, the physician performed a consciousness check and determined that Lockett was conscious. At approximately 6:33, Lockett was determined to be unconscious and the vecuronium bromide was pushed, followed by a saline flush and the potassium chloride. Shortly after that, Lockett began to move. He raised his head and was heard to say, "man" [14] or "oh, man." By the account of Edith Shoals, which I find to be credible, Lockett said, "This shit is fucking with my mind." That is at page 204 of the transcript. Lockett was heard to mumble "something is wrong," and he moved his shoulders and head forward. By the account of Jeanetta Boyd, which was also credible, Lockett was heard to say, "The drugs aren't working." That is at page 182 of the transcript. After these movements and verbalizations, the blinds were closed at the direction of Warden Trammell.

The physician recognized that there was a problem. The physician lifted the sheet and recognized that the

IV had infiltrated, meaning that the IV fluid had leaked into the tissue surrounding the IV access point. The physician noted an area of swelling under Lockett's skin. It was smaller than a tennis ball but larger than a golf ball. It is evident from the autopsy photographs and from the testimony that a bulge of that size, unmistakably indicating a serious infiltration problem, could have and should have been noticed at a significantly earlier stage of the execution process.

Vecuronium bromide is a potent paralytic agent. The intravenous administration of a massive dose of vecuronium bromide, as was called for by the lethal injection protocol that governed Lockett's execution, would have resulted in complete paralysis. Lockett would have been unable to breathe, speak, or raise his head. During this phase of his execution, [15] Lockett was surely experiencing all of the mental pain that is inevitable in the execution process as well as serious physical discomfort if not serious physical pain.

Postmortem toxicology confirmed the presence of midazolam as well as vecuronium and potassium in Lockett's femoral blood at 45 milliequivalents for the potassium and 460 nanograms per milliliter for the vecuronium. The vecuronium bromide was pushed after the midazolam but before the potassium chloride and the vecuronium obviously did not immediately have its intended paralytic effect. Not all of the potassium chloride was pushed, but the potassium chloride was behind the vecuronium bromide and the vecuronium bromide clearly did not flow into Lockett's cardiovascular system in the manner contemplated by the lethal injection protocol. Consequently, it is not possible to determine the extent to which Lockett

suffered the searing pain that would result from an injection of potassium chloride into a sensate person.

Although I cannot and do not find that Lockett was not in pain during this part of the execution process, I do note that during the time that Lockett moved, vocalized, and raised his head and shoulders, of all of the verbalizations attributed to Lockett, at least two of which were complete sentences, the most specific, emphatic, and intelligible statement was, "This shit is fucking with my mind." Which may or may not be a statement that one would have expected Lockett to make if he [16] was feeling the searing pain that he certainly would have felt if he had been conscious while any substantial amount of sodium chloride was being delivered to his tissues.

By all accounts, potassium chloride will cause a sensate individual to feel serious pain. It is clear that patent IV flow of potassium chloride into the cardiovascular system of Clayton Lockett, while conscious and sensate, would have had the extremely painful effect that has been described because patent IV flow would have delivered the substance throughout his body to the most sensitive receptors. What is not clear from the evidence is the extent to which that, in fact, occurred.

After the swelling in Lockett's groin was noted, the execution process was halted and the blinds were lowered at about 6:42 p.m., approximately 20 minutes after the midazolam was administered. Administration of the second syringe of potassium chloride was stopped. The paramedic assessed the situation and concluded that the IV catheter was no longer penetrating the vein. The physician attempted IV insertion into the left femoral vein. The needle

penetrated the femoral artery rather than the femoral vein. No left femoral IV access was established.

At this juncture, Director Patton asked Warden Trammell two questions. First, do you have another viable vein? And, second, do you have any more chemicals to push? Warden [17] Trammell told Director Patton that there was no viable vein. After that, the physician told the warden and the warden relayed to Director Patton that not enough drugs had entered Lockett's body to cause death.

The autopsy of Lockett indicated that there were concentrations of midazolam in the tissue near the insertion site in Lockett's right groin area. This indicated that the drugs were not flowing intravenously into Lockett's cardiovascular system and that this problem had existed as early as the stage at which the midazolam was being administered.

At 6:56 p.m., after two conversations with Governor Fallin's counsel, Director Patton terminated the execution process, although the administration of the drugs had been stopped at about 14 minutes before that. Witnesses were escorted out of the viewing room. At 7:06 p.m., Lockett was pronounced dead. He died as a result of the lethal injection. The drugs that were intended to be lethal had their intended effect.

As to the opportunity for the witnesses to see what was happening, the blinds between the execution chamber and the viewing rooms were raised and lowered once during Lockett's execution. The individuals who viewed the execution room from the viewing room had been seated in the viewing room by 6 p.m. At approximately 6:23 p.m., after Director Patton received [18] approval from the governor's office to proceed with the execution, the blinds were

raised. The blinds were still up when the physician inspected the femoral IV insertion site and concluded that there was a problem with IV access. At 6:42 p.m., when the administration of the second syringe of potassium chloride was stopped, the blinds were lowered. The blinds remained down from that point until Lockett was pronounced dead.

The autopsy disclosed wounds consistent with the IV access attempts that I have described. The autopsy also indicated that both midazolam and vecuronium bromide were found in the psoas muscle indicating that those chemicals had been distributed throughout Lockett's body. The concentration of midazolam found in Lockett's blood was greater than the concentration required to render an average person unconscious.

I will now make my findings with respect to the revision of the lethal injection protocol and Department of Corrections practice under that protocol.

THE REVISION TO THE PROTOCOL AND DOC PRACTICE UNDER THAT PROTOCOL

As I have noted, the DOC adopted a new protocol entitled "Execution of Offenders Sentenced to Death" with an effective date of September 30, 2014. Including attachments, the revised protocol is 55 pages long.

I do not consider it necessary to go into a detailed [19] side-by-side comparison of the revised protocol versus the previous protocol, but it is safe to say that with respect to the matters that are most relevant here, specifically the procedures for establishing IV access to the offender's cardiovascular system, the procedure for administering the chemicals, and the procedures for dealing with mishaps or unexpected

contingencies, the new protocol is noticeably more detailed. The revised protocol also includes detailed provisions with respect to training and pre-execution preparation of the members of the execution team.

The new protocol is in evidence as Plaintiffs' Exhibit 68. A copy of the new protocol is also in the record at Docket Entry Number 55-1 filed on October 1, 2014.

The new protocol provides for several teams to participate in and complete the execution process, including the Intravenous Team, as indicated on page 7. The IV Team consists of a team leader and one or more physicians, physician assistants, nurses, emergency medical technicians, paramedics, or a military corpsman, or other certified or licensed personnel, including those trained in the U.S. Military. The team leader and members shall be "currently certified or licensed within the United States."

Practitioners in some of those categories, such as physicians, must be licensed and others, like military corpsman, are credentialed by certification. The new protocol [20] provides that a central femoral venous line shall not be used unless the person placing the line is currently certified or licensed within the United States to place a central femoral line. That is on page 27. That is not a particularly meaningful requirement because there is no licensing or certification specific to that procedure.

The team leader and members are selected by the director of the DOC on the basis, among other things, of the proposed team member's qualifications, training, experience, and professional licenses or certification, as indicated on page 7.

I'll now address training under the revised protocol.

TRAINING UNDER THE REVISED PROTOCOL

Warden Anita Trammell acknowledged that after the Lockett execution she realized that the training of the execution team had been, in point of time, "up to bringing the offender into the execution chamber." She testified that "the training should have gone beyond that." I agree with that comment. That is at page 158 of the transcript. The new protocol does call for significantly more training.

For execution team members, the new protocol requires "ten training scenarios within the 12 months preceding the scheduled execution." That is on pages 9 and 10. The training section of the protocol provides for "multiple training scenarios," including but not limited to contingency plans for issues with execution equipment or supplies, issues with offender IV [21] access, including alternate IV access sites, issues if the offender is not rendered unconscious after administration of execution chemicals, and unanticipated medical or other issues concerning the offender or an execution team member, all as covered on page 10.

Two days prior to the day of execution, the division manager is required to schedule and conduct "on-site scenario training sessions, modifying practices as warranted," as indicated on page 22. The training section of the revised protocol also requires that the IV Team members "shall participate in at least one training session with multiple scenarios within one day prior to the scheduled execution," as indicated on page 10. The H-Unit Section Chief is required to be trained in determining whether there is a problem with IV flow.

This fall, the execution team has been training one day a week for five or six hours in each instance. The

director is included in these training sessions. They train for a minimum of six scenarios each time and sometimes address seven or eight scenarios. The training scenarios include, for instance, situations in which there is a problem with the IV manifold and drills involving access to the femoral vein.

In addition to the training sessions that have been conducted, a training session will be held with the IV Team within 24 hours before the next execution in which the IV Team [22] will address a scenario in which the inmate regains consciousness after having been pronounced unconscious.

Thirty-five days prior to the day of execution, the protocol requires that the offender's medical condition "be assessed in order to identify any necessary accommodations or contingencies that may arise from the offender's medical condition or history," as indicated on page 16. This includes examination for "concerns for establishing or maintaining IV lines," as indicated on page 17.

The offender's telephone privileges are terminated at 9 p.m. on the day prior to the day of execution, except for calls from the offender's attorney of record and others as approved by the division manager. Likewise, visitation is terminated at 9 p.m. on the day before the day of execution, except that two hours of in-person visitation with up to two attorneys of record is permitted as long as that visitation ends two hours prior to the scheduled execution or earlier, if necessary, to begin preparing the offender for the execution, as indicated on page 22.

The revised protocol requires that an electrocardiograph and a backup electrocardiograph be on site available for use during the execution.

The execution team must prepare a complete set of the required chemicals. In addition, "An additional complete set of the necessary chemicals shall be obtained and kept available [23] in the chemical room," as indicated on page 38.

As is set forth on pages 39 through 41 of the revised protocol, the new protocol gives the director four alternatives with respect to the combination of drugs to be used in the lethal injection process. These alternatives are set forth in Chart A, Chart B, Chart C, and Chart D.

Chart A calls for the administration of 5,000 milligrams of pentobarbital in a one-drug procedure. Chart B provides for the administration of 5,000 milligrams of sodium pentothal, again, in a one-drug procedure. Chart C provides for the administration of 500 milligrams of midazolam and 500 milligrams of hydromorphone. Hydromorphone is a narcotic analgesic. Finally, Chart D provides for the administration of 500 milligrams of midazolam, 100 milligrams of vecuronium bromide, and 240 milliequivalents of potassium chloride. Rocuronium bromide will apparently be used in the upcoming executions, but it is not materially different from vecuronium bromide, aside from what Dr. Katz referred to as "a dosing change," which apparently is not in controversy.

The protocol provides that the director shall have the sole discretion to determine which chemicals will be used for the scheduled execution. This decision is required to be provided to the offender in writing ten calendar days before the scheduled execution date, as indicated on page 41. If it is necessary to use a compounded drug, the compounded drug [24] "shall be obtained from a certified or licensed compounding

pharmacist or compounding pharmacy in good standing with their licensing board." The protocol requires a qualitative analysis of the compounded drug to be performed no more than 30 days before the execution date. The protocol also requires that the decision to use compounded drugs be provided to the offender in writing not less than ten calendar days before the scheduled execution, as indicated on page 41.

The new protocol provides for the insertion of a primary IV catheter and a backup IV catheter. The primary line is referred to as the "A line." The secondary line is referred to as the "B line." IV access is established at two points, with the A line and the B line. If all goes as planned, the drugs would be entirely injected through the A line. If there is a problem with the A line or with IV access through the A line, then the B line is a backup. The complete second set of execution drugs is for use in the B line or otherwise, if need be. The preferred site for IV access is the "arm veins near the joint between the upper and lower arm," as indicated on page 26. If the IV Team is unable to establish an IV at a preferred site, the IV Team members are authorized to establish an IV at an alternative site, including a central femoral venous line. The protocol states that the IV Team shall be allowed as much time as necessary to establish viable IV sites, but that after one hour of unsuccessful IV attempts, the [25] director must contact the governor or the governor's designee to advise of the status and "potentially request a postponement of the execution," as indicated at pages 26 and 27.

After insertion of the IV needle, the IV Team is required to test the viability of the IV site with a low-pressure saline drip through the IV tubing. If

necessary, a Heparin lock may be attached to the IV needle as an alternative to the saline drip as indicated on page 27.

The protocol contains detailed provisions for monitoring the condition of the offender during the execution process, including a requirement that a microphone be affixed to the offender's shirt to enable the execution team "to hear any utterances or noises made by the offender throughout the procedure," as indicated on page 43.

For the purpose of monitoring the offender's cardiac status, the protocol requires that execution team members "attach the leads from the electrocardiograph to the offender's chest once the offender is secured. The IV Team leader shall confirm that the electrocardiograph is functioning properly. A backup electrocardiograph shall be on site and readily available if necessary. Prior to and on the day of the execution, both electrocardiograph instruments shall be checked to confirm that they are functioning properly," as indicated on page 43.

Finally, on the subject of monitoring, the protocol [26] requires that the IV Team leader "monitor the offender's level of consciousness and electrocardiograph readings utilizing direct observation, audio equipment, camera and monitor, as well as any other medically approved methods deemed necessary by the IV Team leader. The IV Team leader shall be responsible for monitoring the offender's level of consciousness," as indicated on page 43.

Although the presence of a physician during the execution process is not required under the revised protocol, a physician has been selected as the IV Team leader for the executions of the four plaintiffs who seek

a preliminary injunction. The second member of the IV Team will be a paramedic. Warden Trammell testified that the consciousness check will be performed by the physician.

The protocol requires that the IV catheter remain visible to the H-Unit Section Team Chief throughout the execution procedure and that the H-Unit Section Team Chief remain in the room with the offender "in a position sufficient to clearly observe the offender and the primary and backup IV sites for any potential problems." The Section Team Chief is required to immediately notify the IV Team leader and the director if any problem is observed, as indicated at page 44.

The H-Unit Section Team Chief is required to observe the offender during the injection process "to look for signs of swelling or infiltration at the IV site, blood in the catheter [27] and leakage from the lines, and other unusual signs or symptoms," as indicated on page 27. For that reason, it falls to the H-Unit Section Team Chief to determine whether it is necessary to use an alternative IV site. When an alternative IV site is used, the team members who administer the chemicals are required to administer a full dose of the execution drugs through the alternative site, as indicated on page 27.

To facilitate the level of scrutiny required by the new protocol, the operations room adjacent to the execution chamber now has two video monitors with feeds from two cameras. Both cameras have tilt, turn, and zoom capability. One camera is located near the head of the gurney and the other camera is located near the foot of the gurney. With these cameras, the IV Team members can monitor the point of IV access on the offender's body.

The lapel microphone on the prisoner provides a continuous audio feed into the operations room where most of the participants in the execution process will be during the execution. This microphone comes on at the beginning of the execution and is not turned off until the offender is pronounced dead. There is a separate microphone over the offender's head. This microphone feeds to the viewing room and to the overflow room. This microphone is turned on when the blinds are raised and is turned off after the offender makes his final statement, if he chooses to make one. It is then [28] turned back on for the doctor to announce the results of the consciousness check and immediately turned off. It is then turned on for the announcement of the time of death.

There are three telephones in the operations room: one to maintain contact with the governor's office, one to maintain contact with the Attorney General's Office, and one for the purposes of communications within the Oklahoma State Penitentiary. In addition, there is an intercom between the execution chamber and the operations room.

With respect to the actual administration of the lethal injection chemicals, the new protocol has one procedure for administration of the chemicals specified in Charts A, B, and C and a slightly different procedure for administration of the three-drug sequence specified in Chart D, as indicated at pages 44 to 46.

With respect to all four chemical charts, the IV Team leader is required to enter the room where the offender is located "to physically confirm the offender is unconscious by using all necessary and medically appropriate methods," as indicated on pages 44 and 46.

If there is a delay in losing consciousness, the IV Team is required to inform the director so that the director can determine how to proceed or whether to "start the procedure over at a later time or stop," as indicated on pages 45 and 46. The director has the discretion to instruct the execution team [29] to administer additional doses of the chemical, as indicated, again, on pages 45 and 46.

The execution facility is now equipped with an electrocardiograph machine to monitor the offender's blood pressure, oxygen saturation, and heart activity during the execution process. A backup machine is available in the event there is a problem with the primary machine. The DOC also purchased an ultrasound machine for use, if need be, in locating a deep vein and the stock of surgical supplies has been improved, to include a newly acquired assortment of IV needles. The newly acquired assortment of IV needles was shown to Captain Holt during his recent tour of the execution facility.

The revised protocol calls for an after-action review following the execution. This after-action review includes discussion of "any unique or unusual events," as well as "opportunities for improvement and successful procedures," as indicated on page 31.

I will now make my findings with respect to the unavailability of sodium thiopental and pentobarbital.

UNAVAILABILITY OF SODIUM THIOPENTAL AND PENTOBARBITAL

In paragraph 31 of their amended complaint, plaintiffs proffer sodium thiopental used in a single-drug protocol as their alternative to midazolam, as indicated at Docket Entry Number 75 at page 7. At the

trial last week, pentobarbital was [30] also mentioned several times.

Pentobarbital and sodium thiopental are powerful barbiturates. A massive dose of either of these drugs is lethal. Which is why, as long as they were available, they had a well-established record of successful use in execution by lethal injection, even in drug combinations in which it was not necessary that they have lethal effect.

Pentobarbital and sodium thiopental are both unavailable to the Department of Corrections. Attempts to procure pentobarbital and sodium thiopental have been unsuccessful. It is a judicially noticeable fact that the Lockett execution was preceded by a storm of litigation involving the state and federal district courts as well as the Oklahoma Supreme Court and the Oklahoma Court of Criminal Appeals. The litigation included intense efforts to force the disclosure of the sources of the lethal injection drugs as noted in Lockett v. Evans, 2014 Westlaw 1584517, a decision from the Oklahoma Supreme Court on April 21, 2014. Former Oklahoma Department of Corrections General Counsel Michael Oakley, who retired shortly before the Lockett execution, testified quite believably that "the vendor, because of pressure in the litigation, decided that he didn't want to sell us the pentobarbital any longer." That is at page 296 of the transcript.

Director Patton cannot think of anything he could have done differently in his efforts to get these drugs and the [31] Court credits this testimony. The DOC talked to numerous pharmacies, including compounding pharmacies, in its efforts to procure pentobarbital and sodium thiopental, either commercially manufactured or compounded. These

efforts were not successful. Sodium thiopental and pentobarbital are certainly known alternatives, but it is equally clear that they're not available to the DOC.

I will now analyze the evidence derived from the execution of Clayton Lockett.

ANALYSIS OF EVIDENCE DERIVED FROM THE EXECUTION OF CLAYTON LOCKETT

Dr. Eric D. Katz, a well-qualified emergency physician, had some credible criticisms of the process by which Clayton Lockett was executed. IV access to Clayton Lockett's right femoral vein was established, as I have said, with a one-and-a-quarter-inch 14-gauge angiocatheter. The one-and-a-quarter-inch 14-gauge angiocatheter was not the appropriate equipment to use to accomplish this task. And the use of a catheter of that size substantially increased the risk of serious difficulties in establishing patent intravenous access by way of Clayton Lockett's right femoral vein. It is now common in medical practice to use ultrasound equipment for guidance in establishing intravenous access to the subclavian, internal jugular, or femoral veins.

Dr. Katz also commented with respect to the requirement in [32] the revised protocol that the person placing a central femoral line be "currently certified or licensed within the United States to place a central femoral line." As I have previously mentioned, Dr. Katz pointed out that this specific task is not one for which certification or licensure is available.

Dr. Katz also commented on the medications and techniques which would be necessary to reverse the effect of midazolam, vecuronium, and potassium. Aside from the medications that would be required to

reverse the effects of these drugs, reversal of the effects of vecuronium would require a ventilator and reversal of the effects of a high dose of midazolam would likely require endotracheal intubation, in other words, a breathing tube, with supplies for ventilator assistance. Dr. Katz pointed out that these medications and this equipment necessary for resuscitation of an individual affected by midazolam, vecuronium bromide, and potassium chloride were not available at the time of Clayton Lockett's execution.

Dr. Joseph I. Cohen and Dr. Joni McClain, both well-qualified pathologists, testified with respect to their respective autopsy examinations of the body of Clayton Lockett. Dr. Cohen was called by the plaintiffs and Dr. McClain, who performed the independent autopsy at the Southwestern Institute of Forensic Sciences in Dallas, was called by the defendants. Their observations from their actual examinations did not [33] substantially differ. Dr. Cohen conducted his autopsy in Tulsa on May 14, 2014. Dr. Cohen's autopsy followed the autopsy performed by the Southwestern Institute of Forensic Sciences and the partial examination that was performed by the Oklahoma State Medical Examiner.

Dr. Cohen found numerous punctures and incisions consistent with the several reported attempts to gain IV access at several sites on Clayton Lockett's body, which was consistent with Dr. McClain's findings. Dr. Cohen found, and this is uncontradicted, that Lockett's veins were in good condition and suitable for establishing IV flow of the lethal injection drugs. Dr. Cohen concluded that the manner of death was judicial execution and that the mechanism of death was respiratory depression and cardiac dysrhythmias

directly resulting from the administration of the lethal injection drugs during the execution process.

Commenting on the numerous fresh punctures observable in Clayton Lockett's body, Dr. Cohen stated that his findings, as well as the findings of the Oklahoma state medical examiner and the Dallas medical examiner, support the ineffective application of medical implements. This is accurate.

Dr. Cohen also opined that Clayton Lockett was not dehydrated during the execution and that he likely suffered conscious pain and suffering due to the failed attempts to establish IV access. I have already commented on the issue of [34] whether Lockett experienced pain beyond that inherent in the execution process. As I have discussed, Lockett may well have experienced significant pain, but any such conclusion is laden with an element of speculation.

I will now comment on the nature and characteristics of midazolam and the other drugs at issue.

NATURE AND CHARACTERISTICS OF MIDAZOLAM AND THE OTHER DRUGS AT ISSUE

Plaintiffs called two witnesses who addressed the characteristics of midazolam; namely, Dr. Larry D. Sasich, a pharmacist who holds a Bachelor of Science degree in pharmacy and a doctoral degree in pharmacy; and Dr. David A. Lubarsky, a Professor of Anesthesiology at the University of Miami. Dr. Sasich also commented on the characteristics of vecuronium bromide and potassium chloride.

The defendants called Dr. Lee R. Evans, the holder of a doctoral degree in pharmacy, principally to testify

with respect to the characteristics and effects of midazolam.

Now, several days before the hearing, a Daubert motion was filed with respect to the expert testimony of Dr. Lee Evans. I indicated at the pretrial conference that I would address that—as permitted in a non-jury case, that I would address that after hearing his testimony by way of direct and cross-examination at trial. And I certainly did hear his testimony by way of direct and cross-examination. I reviewed the motion [35] in limine. I made careful note of the extent to which his testimony was challenged in the motion in limine and the subjects on which it was challenged.

The Tenth Circuit has made it very clear that once a Daubert challenge is filed, the Court must make its findings on the record indicating its resolution of the Daubert challenge. And I will now do that at this time.

DAUBERT RULING WITH RESPECT TO THE EXPERT TESTIMONY OF DR. LEE EVANS

On December 15, as I indicated, plaintiffs filed a motion in limine challenging some specific aspects of the proposed expert testimony of Dr. Lee Evans. That motion is at Docket Entry Number 161. For that reason, before making any findings based on the testimony given by the expert witnesses called by the parties, it is necessary to address the Daubert challenge as to Dr. Evans.

The Supreme Court's decisions in Daubert v. Merrell Dow Pharmaceutical, Inc., 509 U.S. 579, and Kumho Tire Company v. Carmichael, 526 U.S. 137, establish a gatekeeper function for trial judges under Rule 702 of the Federal Rules of Evidence. This is commented on at considerable length in the Tenth Circuit's two Goebel decisions, the first one of which is

Goebel v. Denver and Rio Grande Western Railroad Company, 215 F.3d 1083, with the relevant discussion at page 1087, a decision from the Tenth Circuit in 2000. The gatekeeper [36] function "requires the judge to assess the reasoning and methodology underlying the expert's opinion and determine whether it is scientifically valid and applicable to a particular set of facts," as indicated in the first Goebel decision at page 1087.

In Kumho, the Supreme Court elaborated on the Daubert gatekeeping function as applied to proposed expert testimony other than classic scientific testimony. The Court emphasized that even where the proposed expert testimony is not scientific in nature in the classical sense, the trial judge is nevertheless required to ascertain whether the expert "employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field," as indicated at page 152 of the Kumho decision.

In this case, the plaintiffs' motion in limine challenges both Dr. Evans' qualifications and his methodology, so it is necessary to analyze the matter under both parts of the Daubert and Rule 702 test.

The decision in Ralston, 275 F.3d 965, provides a good starting point with respect to evaluation of Dr. Evans' qualifications. The plaintiff in Ralston asserted that the warnings accompanying an implanted orthopedic nail were inadequate. The Court of Appeals affirmed the trial court's exclusion of the testimony of plaintiffs' expert, a board certified orthopedic surgeon, who was also an associate [37] professor of medicine. The expert's general credentials were clearly as good as reasonably could have been expected, but she had done no research specifically looking at the nail in question and had not drafted a warning for a surgical

device. Her general credentials, though seemingly impressive as general credentials, were not good enough. "Merely possessing a medical degree is not sufficient to permit a physician to testify concerning any medical-related issue," as the Court discussed at page 970. The board certified orthopedic surgeon's reliance on general principles and concepts, as the Court put it, did not suffice. The controlling Tenth Circuit cases exemplified by Ralston established that the expert's qualifications must be both adequate in a general qualitative sense as required by Rule 702 and specific to the matters he proposes to address as an expert.

Plaintiffs also challenge the reliability of Dr. Evans' expert testimony.

Under Rule 702, an expert with the necessary qualifications in the relevant field may give expert testimony, one, if the testimony is based on sufficient facts or data; two, if the testimony is the product of reliable principles and methods; and, three, the witness has applied the principles and methods reliably to the facts of the case, as indicated by Rule 702. And this is also generally discussed in the second Goebel decision, 346 F.3d 987, with the relevant portion at page 991.

[38] Daubert, of course, involved a proffer of expert testimony in a classical scientific discipline, epidemiology. The Court provided a non-exclusive list of five factors which were provided by the Court to guide trial court determinations of reliability. I will not repeat those lists—those factors here. Counsel are well aware of them.

Kumho made it clear that the gatekeeper function applies even where the proposed expert testimony is

outside the realm of science in the classical sense, as I have discussed. As noted by the Advisory Committee in commenting on the 2000 amendments to Rule 702, courts both before and after Daubert have found other factors relevant in determining whether expert testimony is sufficiently reliable to be considered by the jury. Those additional factors are listed in the comments to Rule 702 and I will not repeat them here.

In sum, the Daubert assessment of reliability is a determination of whether the conclusions to be expressed by an expert possessed of the necessary qualifications in the relevant field are the product of application of that expertise using recognized and supportable methodologies on the basis of adequate data which is rationally tied to the opinions which purport to be based on that data.

As indicated in the second Goebel decision, 346 F.3d at 992, "Under Daubert, any step that renders the analysis unreliable renders the expert's testimony inadmissible. This [39] is true whether the step completely changes a reliable methodology or merely misapplies that methodology." To the same general effect is Mitchell v. Gencorp, 165 F.3d 778, with the relevant discussion at page 782, a Tenth Circuit decision from 1999.

I reject plaintiffs' challenge to Dr. Evans' qualifications. Dr. Evans' CV is in evidence as Defendants' Exhibit 35 and I will not repeat that information here. His qualifications go far beyond those of an everyday pharmacist and his clinical experience is an obvious adjunct of his academic attainments, at least as relevant to this case.

I might add that Dr. Sasich, called by the plaintiffs, freely went beyond pharmacological topics and

expounded on physiology and to some extent clinical medical practice based substantially on his searches of literature he considered to be relevant. Dr. Evans' considerable qualifications satisfy me that he should be accorded the same leeway.

It is necessary to evaluate the reliability of Dr. Evans' expert testimony only to the extent that the portions of his testimony that I cite in this ruling have been made explicitly—have been explicitly challenged by plaintiffs in their motion in limine. For that reason, there is no need to engage in a reliability analysis of all of the matters testified to by Dr. Evans or discussed in his report and there is no need to dwell on the fact that he misplaced a decimal point in one of [40] his observations about the possible lethal effect of midazolam.

Those aspects of Dr. Evans' testimony, upon which I principally rely, are his findings with respect to the risk that a 500 milligram dose of midazolam will fail to induce a state of unconsciousness and his criticisms of the contention that there is a ceiling effect that is relevant to the determination of whether the prisoner will experience pain after IV administration of 500 milligrams of midazolam. His commentary in part 7 of his report about brain-dead patients and involuntary movements is of no moment to my ruling. With respect to the issue of whether Lockett's movements were voluntary or involuntary, the fact is that he, in all probability, had far less than 500 milligrams of midazolam in his circulatory system at the time he moved after being pronounced unconscious.

I find that Dr. Evans was well-qualified to give the expert testimony that he gave and that to the extent that his testimony was challenged in the motion in limine and relied upon by the Court in this ruling, his

testimony was the product of reliable principles and methods reliably applied to the facts of this case. The motion in limine with respect to Dr. Evans, Docket Entry Number 161, is denied.

I will now address the nature and characteristics of midazolam.

NATURE AND CHARACTERISTICS OF MIDAZOLAM

[41] With respect to the actual characteristics, effects, and preferred clinical uses of midazolam, the experts on the two sides of this case were in substantial agreement.

Midazolam is a short-acting benzodiazepine, which is most commonly used as a pre-anesthetic agent for routine medical procedures. Midazolam is approved by the Food and Drug Administration for sedation and induction of general anesthesia to be used before administration of other anesthetic agents. It can be used to alleviate patient apprehension, to eliminate the patient's memory of a procedure, and to induce anesthesia. It is not intended for use as a pain reliever. It is not an analgesic. In that respect, midazolam does not behave like an opiate or narcotic medications. It does have the effect of depressing the central nervous system at least when administered in a large dose. It begins to take effect quite quickly after introduction into the blood stream. It crosses the blood brain barrier and reaches maximum effects within 20 to 60 minutes.

The 500 milligram dosage of midazolam, as called for in Charts C and D of the revised protocol, is many times higher than a normal therapeutic dose of midazolam. When midazolam is administered in that quantity, it will result in central nervous system

depression as well as respiratory arrest and cardiac rest. In the dosage called for by the revised protocol, midazolam, although not an analgesic, is highly [42] likely to render the person unconscious and insensate during the remainder of the procedure. Consequently, analgesia, from midazolam or otherwise, is not necessary.

The proper administration of 500 milligrams of midazolam, as specified in Chart D, would make it a virtual certainty that any individual will be at a sufficient level of unconsciousness to resist the noxious stimuli which could occur from the application of the second and third drugs—or from the administration of the second and third drugs in Chart D, assuming that proper intravenous access has been established. The administration of a 500 milligram dose alone would be likely to cause death by respiratory arrest within an hour and probably closer to 30 minutes. This is because midazolam is water soluble. And as I have mentioned, it crosses the blood brain barrier very quickly.

There were some noteworthy areas of agreement between Dr. Evans and Dr. Lubarsky with respect to the anesthetic effect of midazolam. Dr. Lubarsky testified that an IV dose of 500 milligrams of midazolam would produce unconsciousness in "no more than a couple of minutes." That is at page 117 of the transcript. As to the level of unconsciousness needed, for instance, to render a prisoner insensate for purposes of setting a femoral IV line, Dr. Lubarsky testified that "midazolam unconsciousness is actually sufficient." That is at page 133 of the transcript. This is noteworthy not because [43] midazolam was used for that purpose with Lockett but because setting a femoral line entails "digging deeper into the tissue," as

described by Dr. Lubarsky, "a couple of inches below the skin's surface," as indicated at page 150 of the transcript.

Plaintiffs contend that there is a certain dosage level beyond which incremental increases in midazolam dosage would have no corresponding incremental effect. In pharmacological terms, this is called "the ceiling effect." As described by Dr. Sasich and Dr. Lubarsky, midazolam has a ceiling effect which prevents an increase in dosage from having a corresponding incremental effect on anesthetic depth. However, Dr. Evans testified persuasively, in substance, that whatever the ceiling effect of midazolam may be with respect to anesthesia, which takes effect at the spinal cord level, there is no ceiling effect with respect to the ability of a 500 milligram dose of midazolam to effectively paralyze the brain, a phenomenon which is not anesthesia but does have the effect of shutting down respiration and eliminating the individual's awareness of pain. The dosage at which the ceiling effect may occur at the spinal cord level is unknown because no testing to ascertain the level at which the ceiling effect occurs has been documented.

The use of midazolam presents a risk of paradoxical reactions or side effects such as agitation, involuntary [44] movements, hyperactivity, and combativeness. According to the product label for midazolam, these reactions may be the result of inadequate or excessive dosing or improper administration of midazolam. The likelihood that a paradoxical reaction will occur in any particular instance is speculative, but it occurs with the highest frequency in low therapeutic doses. Dr. Evans estimated that with a low therapeutic dose of midazolam there would be less than a 1 percent incidence of a paradoxical reaction. Dr. Sasich could

not say whether the incidence of a paradoxical reaction in the Oklahoma inmate population would be toward the low end or the high end of the range of incidence of that effect as documented in the literature. No data are available to show what the paradoxical reaction would be or the likelihood of a paradoxical reaction would be with a 500 milligram IV dose of midazolam.

The evidence falls well short of establishing that the risk of a paradoxical reaction at a 500 milligram IV dosage presents anything more than a mere possibility in any given instance that midazolam will fail to deliver its intended effect.

Based on the impressive record of pentobarbital and sodium thiopental, in a long series of executions by lethal injection in Oklahoma and other states, there is little room for doubt that pentobarbital and sodium thiopental would be preferable as the first drug in a three-drug protocol. With midazolam, there [45] may be some incrementally greater risk than with pentobarbital or sodium thiopental that the inmate will sense pain as a result of the injection of vecuronium bromide and the potassium chloride but will not have the ability to express the fact that he senses pain. How much greater that risk is, nobody knows, but some added element of risk of pain may be present with midazolam as opposed to pentobarbital or sodium thiopental.

Ironically, the very efficacy of pentobarbital and sodium thiopental for use in lethal injection has resulted in their unavailability for use by the Department of Corrections for lethal injection purposes. If either pentobarbital or sodium thiopental were available, Director Patton would have selected them rather than the midazolam protocols.

On this point, I am mindful that the Supreme Court in Baze v. Rees, 553 U.S. 35, a decision from 2008, made it clear that this Court is not to sit as "a board of inquiry charged with determining best practices for executions." That's at page 51 of the Baze decision.

I'll now comment with respect to the capabilities or properties of vecuronium bromide.

VECURONIUM BROMIDE

Vecuronium bromide is a neuromuscular blocking agent. The accounts of the Lockett execution which indicate that he began to move after the beginning of the administration of vecuronium bromide indicate that at that point he had not been paralyzed [46] by the neuromuscular blocking effect of vecuronium bromide.

From all the evidence before the Court, I conclude that the implementation of lethal injection per Chart D does not carry a substantial likelihood of inflicting severe pain.

We'll now take a ten-minute recess.

(RECESS HAD.)

THE COURT: I'll now summarize the claims asserted by the plaintiffs for preliminary injunction purposes.

CI AIMS ASSERTED BY THE PLAINTIFFS FOR PRELIMINARY INJUNCTION PURPOSES

The amended complaint filed on October 31, 2014, pleads claims divided into eight counts, some of which, as might be expected, are interrelated. Five of those counts, specifically Counts 2, 4, 5, 7, and 8, are asserted for preliminary injunction purposes as shown

by the motion for preliminary injunction at Docket Entry Number 92.

In Count 2, the preliminary injunction plaintiffs assert that the use of midazolam would constitute cruel and unusual punishment in violation of the Eighth and Fourteenth Amendments.

Count 4 asserts violations of the Eighth and Fourteenth Amendments based on what plaintiffs describe as "unsound procedures and inadequate training," as indicated at page 28 of Docket Entry Number 75. Under this heading, plaintiffs assert that the failure of Defendants Patton and Trammell "to seek out [47] expert assistance has resulted in execution procedures that create a substantial risk of severe pain, needless suffering, and a lingering death," as indicated at paragraph 137.

Count 4 also complains that ultimate authority to supervise the execution process and make decisions about the process is vested in the Defendant Patton without "appropriate checks and balances to ensure against severe pain, needless suffering, and a lingering death during the execution process." That is at paragraph 155.

Plaintiffs further assert that as a result of these failures, among others, there is "a substantial risk that the procedures will not be administered as written." That's paragraph 156.

Referring to the revised protocol, plaintiffs assert in paragraph 160 that "if the attempted executions of plaintiffs are allowed to proceed in accordance with the deficient procedures identified above, plaintiffs will be subjected to cruel and unusual punishment in violation of the Eighth and Fourteenth Amendments to the United States Constitution."

In Count 5, under "Notice and Opportunity to be Heard, Right to Counsel and to Petition the Courts," plaintiffs point out that under the revised protocol, the offender will be notified only ten calendar days before the date of execution of the drugs to be used and as to whether they will be compounded. This is paragraph 163.

[48] In this count, plaintiffs also assert that the revised protocol allows Defendant Patton "to deviate from any of those procedures at will and without notice, thereby making the written instrument virtually meaningless as a form of notice." That is paragraph 164. On this basis, plaintiffs conclude in Count 5 that by "failing to require and provide meaningful and effective notice of how plaintiffs will be executed," defendants are depriving the plaintiffs of their right to notice and an opportunity to be heard in violation of the Due Process Clause of the Fourteenth Amendment and are subjecting plaintiffs to cruel and unusual punishment in violation of the Eighth and Fourteenth Amendments, as indicated in paragraph 169.

Count 7 is an Eighth Amendment claim predicated on "experimentation on captive human subjects." Plaintiffs assert that by "attempting to conduct executions with an ever-changing array of untried drugs of unknown provenance, using untested procedures, defendants are engaging in a program of biological experimentation on captive and unwilling human subjects," as indicated at paragraph 184. In support of this allegation, plaintiffs cite the experience with the execution of Clayton Lockett, which they assert was "a failure that produced severe pain, needless suffering, and a lingering death," at page—at paragraph 184.

Under this heading, plaintiffs further assert that the [49] defendants lack the scientific skills necessary to design an execution procedure that does not inflict severe pain, needless suffering, or a lingering death and that defendants have failed to test their lethal drugs and execution procedures on non-human animals before using them on captive and unwilling human subjects as pleaded at paragraphs 187 and 188. On this basis, plaintiffs assert that if the attempted executions of plaintiffs are allowed to proceed plaintiffs will be subjected to cruel and unusual punishment in violation of the Eighth and Fourteenth Amendments to the United States Constitution.

In Count 8, plaintiffs assert a violation of their "right of access to information, to counsel, and to the courts." Under this heading, plaintiffs assert a violation of their rights as a result of the defendants' "deliberate concealment of information that would enable plaintiffs to determine how defendants intend to carry out their death sentences, including by failing to disclose in advance of the execution details about the drugs used, the rationale for the selection of these drugs and their dosages, the qualifications and training of the persons administering them, and defendants' ability to respond and prepare for responding to complications," as pleaded at paragraph 195.

They assert a violation of their right to petition the government for redress of their grievances as well as a denial of their right to counsel, which they assert exists "during [50] every stage of any attempt to execute" the plaintiff. That is at paragraph 198. As for violation of the right to counsel, plaintiffs assert, in substance, that plaintiffs' counsel must be permitted to observe all steps of the execution process from the

time that the offender is brought into the execution chamber until the offender is pronounced dead. That is at page 207.

Plaintiffs also assert that their counsel "must be able to communicate with the courts as to any problems or deviations that occur during the execution that impact plaintiffs' substantial rights." That is at paragraph 208. For these reasons, among others, plaintiffs assert in Count 8 that execution under the revised protocol would violate their rights under the First and Fourteenth Amendments to the United States Constitution and under 18 United States Code, Section 3599, as indicated in paragraph 218.

I will now address the standards for entry of a preliminary injunction.

STANDARD FOR ENTRY OF A PRELIMINARY INJUNCTION

To establish that preliminary injunctive relief is appropriate, plaintiffs must demonstrate, first, that they will likely succeed on the merits of their claim; second, that without preliminary relief they will suffer irreparable harm; third, that the balance of equities tips in their favor; and, fourth, that entry of an injunction is in the public interest.

[51] That is all as discussed by our Court of Appeals in Kikumura v. Hurley, 242 F.3d 950, with the relevant discussion at page 955. That's a decision from the Tenth Circuit in 2001.

The injunctive relief the plaintiffs seek here is not in the disfavored category, so there is no basis for the Court to apply the heightened standard that would govern if the injunctive relief sought by plaintiffs were in one of the disfavored categories. As indicated by the

Court of Appeals in the Kikumura decision, citing Otero Savings & Loan Association v. Federal Reserve Bank of Kansas City, 665 F.2d 275, with the relevant discussion at page 278, a decision from the Tenth Circuit in 1981. When the other three requirements for a preliminary injunction are satisfied, "it will ordinarily be enough that the plaintiff has raised questions going to the merits so serious, substantial, difficult, and doubtful as to make them a fair ground for litigation." That is at page 955 of the Kikumura decision.

CONCLUSIONS OF LAW

I will now state my conclusions of law. I don't think it would be particularly helpful to the parties or to a reviewing court for me to simply declare some abstract principles of law, most of which are well-established. What is decisive in this case is the application of those principles to the facts of this case. That will be my main focus. And that will require some discussion of the facts as I state my conclusions of law.

[52] As I have already mentioned, the motion now before the Court involves five of the eight counts in the amended complaint; namely, Counts 2, 4, 5, 7, and 8. I will discuss those in the order in which they appear in the amended complaint.

I will first address Count 2, which is the Eighth Amendment claim relating to midazolam.

COUNT 2 - EIGHTH AMENDMENT - MIDAZOLAM

In Count 2, plaintiffs assert that their Eighth Amendment right to be free of cruel and unusual punishment would be violated if, in the execution process, midazolam—if, in the execution process, midazolam is used as provided in the revised protocol.

Other drugs, such as sodium thiopental, have been used as the first drug in the execution sequence with a longer record than midazolam has of reliably producing the desired effect. For that reason, it is not necessary to look past sodium thiopental to say with considerable confidence that if all of the—if all of the potentially usable anesthetic and sedative agents produced by the pharmaceutical industry were equally available to the DOC, it is not likely that midazolam would be the first choice. Director Patton's testimony makes that clear. This makes it especially important to proceed with a thorough understanding of the standard established by the Supreme Court in Baze v. Rees.

[53] Baze v. Rees, 553 U.S. 35, a decision, as I have mentioned, from 2008, came to the Supreme Court from Kentucky where the protocol called for the administration of 3,000 milligrams of sodium thiopental, 50 milligrams of pancuronium bromide, and 240 milliequivalents of potassium chloride. The Kentucky protocol before the Supreme Court in Baze v. Rees provided for IV insertion by "qualified personnel having at least one year of professional experience." That is 553 U.S. at page 45. In practice, Kentucky used a certified phlebotomist and an emergency medical technician to perform the venipunctures necessary for the catheters, as indicated at page 45. The protocol allowed up to one hour within which to establish both primary and secondary peripheral intravenous sites in the arm, leg, hand, or foot of the inmate, as indicated also on page 45.

In Baze, the Court noted as a preliminary matter that "it is uncontested that failing a proper dose of sodium thiopental that would render the prisoner

unconscious, there is a substantial constitutionally unacceptable risk of suffocation from the administration of pancuronium bromide and pain from the injection of potassium chloride," as discussed at page 53. In Baze, the prisoner asserted, among other things, that the protocol was deficient because it was "possible that the IV catheters will infiltrate into surrounding tissue causing an inadequate dose to be delivered to the vein because of [54] inadequate facilities and training and because Kentucky has no reliable means of monitoring the anesthetic depth of the prisoner after the sodium thiopental has been administered." And that is at page 54.

Under the Kentucky protocol, the warden and deputy warden, who apparently were not subject to any particular training requirements, were charged with the responsibility to "watch for any problems with the IV catheters and tubing," as discussed at pages 45 and 46. In the Kentucky procedure, the physician was prohibited from participating in conducting the execution other than to certify the cause of death, as also discussed on page 46.

It also fell to the warden and the deputy warden, "through visual inspection," to determine whether the prisoner had become unconscious within 60 seconds following the delivery of the sodium thiopental to the primary IV site, as discussed on page 45.

The plurality opinion in Baze was written by Chief Justice Roberts and was joined by Justices Kennedy and Alito. Justices Stevens, Scalia, Thomas, and Breyer concurred in the judgment. As indicated by the concurring opinion of Justice Thomas, with whom Justice Scalia joined, Justices Scalia and Thomas would find an Eighth Amendment violation only if a method of execution "is deliberately designed to inflict

pain," as discussed on page 94. The Supreme Court's decision in Marks v. [55] United States, 430 U.S. 188, from 1977, tells us at page 193 that where there is a fractured decision of the Supreme Court, the Court's holding is the position taken by those members of the Court who concurred in the judgment on the narrowest grounds. Since the position taken in Baze by Justices Scalia and Thomas was noticeably less exacting than the position taken by the Chief Justice and Justices Kennedy and Alito in the plurality opinion, the Court's holding in Baze is to be found in the plurality opinion.

Before getting into the holdings in Baze, one other aspect of that decision should be noted. In Baze, the petitioner's arguments centered mainly on the asserted risk of improper administration of sodium thiopental, which would potentially leave the prisoner conscious when the second and third chemicals are administered. Counsel for the petitioner in Baze acknowledged at oral argument that proper administration of the first drug, sodium thiopental, would eliminate any meaningful risk that the prisoner would experience pain from the subsequent injections of the second and third drugs, as discussed on page 49.

In contrast, in the matter now before this Court, plaintiffs assert both the risk of maladministration of the drugs and that the first drug, midazolam, is, in any event, unreliable as an anesthetic agent. The holdings in Baze are nevertheless instructive and certainly binding on this Court [56] because regardless of the source of the risk, the Baze decision was all about risk and how we evaluate that risk for Eighth Amendment purposes.

After a detailed analysis of the Kentucky lethal injection protocol, viewed in light of the Supreme

Court's precedence, the plurality in Baze summarized the applicable standard as follows: "A stay of execution may not be granted on grounds such as those asserted here unless the condemned prisoner establishes that the state's lethal injection protocol creates a demonstrated risk of severe pain. He must show that the risk is substantial when compared to the known and available alternatives. A state with a lethal injection protocol substantially similar to the protocol we uphold today would not create a risk that meets this standard," as this Court stated at page 61.

In closing argument in this case last Friday, plaintiffs argued that Baze is distinguishable from this case in a way that makes the holding in Baze with respect to "known and available alternatives" inapplicable in this case. I disagree. It is true that this case involves both the risk that the first drug will not have its intended effect even if delivered in a massive IV dose and the risk that, due to a deficient technique, the massive IV dose will not, in fact, be delivered as intended.

In the section of the plurality opinion on page 61 in [57] which the Supreme Court made reference to comparison with "known and available alternatives," the Court was speaking broadly in terms of whether the prisoner had established "that the state's lethal injection protocol creates a demonstrated risk of severe pain." In stating that the prisoner "must show that the risk is substantial when compared to the known and available alternatives," the Court did not differentiate between the two types of risks.

On this point, I would also note that this reading of Baze is also borne out by common sense. It is extremely unlikely that the Supreme Court would establish a constitutional doctrine that would enable a

condemned inmate to block his execution on Eighth Amendment grounds with no consideration by the Court of alternatives which by way of comparison demonstrate the constitutional unacceptability of the risk complained of by the prisoner. Logic tells us that alternatives are relevant in determining whether there is a constitutionally impermissible quantum of risk regardless of the source of the risk.

In reaching its conclusions in Baze, the Court made several other observations which are of varying degrees of relevance on the facts of this case.

First, it is significant, at least at a high level of generality, that the Court in Baze noted that the Supreme Court had never invalidated a state's chosen procedure for carrying [58] out a sentence of death as the infliction of cruel and unusual punishment, as discussed at page 48. The Court also stated unequivocally that simply because an execution method may result in pain, either by accident or as an inescapable consequence of death, does not establish the sort of objectively intolerable risk of harm that qualifies as cruel and unusual within the meaning of the Eighth Amendment, as discussed at page 50.

Elaborating on that point, also on page 50, the Court told us that an isolated mishap alone does not give rise to an Eighth Amendment violation precisely because such an event, while regrettable, does not suggest cruelty or that the procedure gives rise to a substantial risk of serious harm. Because Baze, like the case now before this Court, is really all about risk and how we evaluate and attribute significance to that risk, it is also helpful to bear in mind the risks which individually and collectively were insufficient to support granting relief to the petitioner in Baze.

The petitioner in Baze asserted that there was a risk of improper administration of the lethal injection drugs because the doses were difficult to mix into solution and to load into the syringes, the protocol failed to establish a rate of injection, there was a risk of infiltration of drugs into the surrounding tissue, Kentucky's execution facilities and training of the execution team were inadequate, and there was [59] no reliable means of monitoring the anesthetic depth the prisoner had reached, all as discussed on page 54. These risks, individually and collectively, were insufficient to support a grant of relief in Baze.

As a necessary corollary to its main holding in Baze, the Court also stated unequivocally that "an inmate cannot succeed on an Eighth Amendment claim simply by showing one more step the state could take as a fail-safe for other independently adequate measures," as discussed on pages 60 and 61. The Supreme Court expressly rejected the notion that federal courts should, in effect, sit as "boards of inquiry charged with determining best practices for executions with each ruling supplanted by another round of litigation, touting a new and improved methodology, as discussed at page 51. The Court expressly noted that the best practices approach "calling for the weighing of relative risks without some measure of deference to a state's choice of execution procedures would involve the courts in debatable matters far exceeding their expertise," as discussed in note 2 on page 51.

In her dissenting opinion, Justice Ginsburg lamented that there were several shortcomings in the Kentucky protocol that, in her view, regrettably did not make any difference to the majority. This included the lack of safeguards to determine whether the inmate was unconscious before injection of the second

and third drugs, the fact that only the warden and the [60] deputy warden remained in the execution chamber after placement of the catheters, the lack of any medical training on the part of the warden and the deputy warden, the reliance only on visual observation to determine whether the inmate appeared to be unconscious, and the failure to use reflex tests or noxious stimulus to determine whether the prisoner was unconscious. Those matters were discussed by Justice Ginsburg on pages 114 and 118.

The Tenth Circuit has had more than one opportunity to apply the principles established in Baze. The best example would be the decision in Pavatt v. Jones, 627 F.3d 1336, a Tenth Circuit decision from 2010.

In Pavatt, at pages 1338 and 39, the Tenth Circuit said—and here I am leaving out citations and internal quotations. "In Baze, the Court acknowledged that subjecting individuals to a risk of future harm, not simply inflicting pain, can qualify as cruel and unusual punishment. However, the Court emphasized to establish that such exposure violates the Eighth Amendment, the conditions presenting the risk must be sure or very likely to cause serious illness and needless suffering and give rise to sufficiently imminent dangers."

In Pavatt, the Tenth Circuit also noted that in Baze the Supreme Court held that simply because an execution method may result in pain, either by accident or as an inescapable consequence of death, does not establish the sort of [61] objectively intolerable risk of harm that qualifies as cruel and unusual. Likewise, the Tenth Circuit noted that in Baze the Supreme Court held that a stay of execution may not be granted "unless the condemned prisoner

establishes that the state's lethal injection protocol creates a demonstrated risk of severe pain and that the risk is substantial when compared to the known and available alternatives." That is at page 1339 of the Pavatt decision quoting Baze at page 61. On this point, it is noteworthy that in Pavatt the prisoner, Jeffrey Matthews, was asserting a drug-related risk, not a risk of maladministration.

One of the things that is clear from the Baze decision, especially as that decision was applied by the Tenth Circuit in Pavatt, is that if the risk asserted by the prisoner is very speculative at all that speculative element will drain away the constitutional significance of the risk. A good example of this is the treatment of an Arizona prisoner's claims by the Arizona District Court, the Ninth Circuit, and the Supreme Court.

In Landrigan v. Brewer, 2010 West Law 4269559, from the District of Arizona on October 25th of 2010, the plaintiff asserted that there was an unconstitutional risk of harm flowing from the state's proposed use of drugs from a foreign source that was not approved by the FDA. The plaintiff asserted that the foreign supply of sodium thiopental might be [62] contaminated with toxins that could cause pain and could fail to properly anesthetize the plaintiff resulting in excruciating pain when the second and third drugs are administered.

The district court agreed that the prisoner had raised significant issues about the efficacy of the non-FDA-approved sodium thiopental and granted a stay of execution. The stay was affirmed by the Ninth Circuit at 625 F.3d 1144. The Supreme Court promptly vacated the stay in a one-paragraph opinion. Brewer v. Landrigan, 131 Supreme Court 445, from

2010. Of note here, the Supreme Court, quoting its decision in Baze, in part, said that "there is no evidence in the record to suggest that the drug obtained from a foreign source is unsafe. The district court granted the restraining order because it was left to speculate as to the risk of harm. But speculation cannot substitute for evidence that the use of the drug is sure or very likely to cause serious illness and needless suffering." Those are the words of the Supreme Court.

Thus, the Supreme Court's subsequent treatment of its decision in Baze makes it unmistakably clear that a speculative assertion of a risk of harm cannot substitute for a showing "that the use of the drug is sure or very likely to cause serious illness and needless suffering."

I'm also influenced by the Sixth Circuit's opinion in Cooey v. Strickland, 589 F.3d 210, a Sixth Circuit decision from 2009, in part because of the very thoughtful opinion [63] written for the Court by Circuit Judge Julia Smith Gibbons and in part because that case involving an Ohio execution arose against the backdrop of a serious mishap that had occurred in another execution in Ohio.

Cooey v. Strickland was decided on December 7, 2009, one day before the plaintiff in that case, Kenneth Biros, was scheduled for execution. On September 15, 2009, slightly less than three months before the Sixth Circuit's decision in Cooey, the state of Ohio unsuccessfully attempted to execute Romell Broom. As explained by the Court of Appeals in Cooey, "The execution team was unable to find a vein on Broom's arm after repeated attempts over two hours. They attempted to insert the IV catheter into the crook of Broom's elbow, his wrists, over the knuckle of his first

finger, and near his ankle. Twice the team managed to insert a catheter that was not secured properly and caused bleeding." That's 589 F.3d at page 224, note 3.

Citing the unsuccessful attempt to execute Biros, as well as other allegedly unconstitutional revisions to the Ohio protocol, Biros sought a stay of execution. He asserted that there was an undue risk of improper implementation of the Ohio protocol which would lead to severe pain, that Ohio employed untrained and insufficiently competent medical personnel, that there was a lack of supervision of the execution process by a licensed physician, and that there was a lack of a prescribed time limit within which to establish IV access, among other [64] complaints, as indicated on page 223.

On the issue of the risk of maladministration, the unfortunate experience in the Broom execution figured heavily into the arguments advanced by Biros. As explained by the Fifth Circuit, "Biros relies heavily on Ohio's halted execution of Broom to distinguish his case from that of Baze," as stated on page 224.

The Sixth Circuit concluded that the unfortunate and very recent experience with the Broom execution, which, from the available information, could fairly be called a botched execution, did not take Biros' claim out of the realm of speculation. Citing Clemons v. Crawford, 585 F.3d 1119, an Eighth Circuit decision from 2009, the Sixth Circuit noted that the Eighth Circuit had "rejected the prisoner's claim that there was a substantial risk of pain due to incompetent personnel despite the fact that the Court had previously found that medical personnel administering the protocol, since removed, had been incompetent," as stated at page 225. The Sixth Circuit concluded that "for the same reasons, we cannot assume that the

same misfortunes that befell Broom will befall Biros," as stated at page 225.

On the basis of the record before it, including the wholly unsuccessful attempt to execute Romell Broom, the Sixth Circuit held that "speculations or even proof of medical negligence in the past or in the future are not sufficient to render a [65] facially constitutionally sound protocol unconstitutional." That is the Cooey decision at page 225.

I conclude, as a matter of law, that the revised lethal injection protocol adopted by the Oklahoma Department of Corrections effective September 30, 2014, is facially constitutional when measured by the principles promulgated in Baze v. Rees, as further explained by our Court of Appeals in Pavatt v. Jones.

Citing the experience with the execution of Clayton Lockett, these plaintiffs assert, in substance, that there is not a constitutionally sufficient degree of assurance that the revised protocol, even if it is constitutional on its face, will be administered in a way which will avoid the infliction of serious pain. This contention obviously requires the Court to assess probabilities with respect to future events, some of which are within the control of humans, albeit fallible humans, and some of which are decidedly not within the control of anyone.

I conclude on the basis of the evidence before me that plaintiffs have failed to establish that proceeding with the execution of these plaintiffs on the basis of the revised protocol presents a risk that is "sure or very likely to cause serious illness and needless suffering," amounting to "an objectively intolerable risk of harm," in the words of the Supreme Court at page 50 of the Baze decision.

[66] In reaching this decision, I place considerable reliance, and I'm going to say again considerable reliance, on three aspects of the DOC's lethal injection protocol. The first is the requirement that both primary and backup IV access sites be established. The second is that confirmation of the viability of the IV sites is specifically required. The third is that the offender's level of consciousness must be monitored throughout the procedure.

The predominant risk asserted by the plaintiffs in this case is that midazolam will not have its intended effect as the first drug in the series, thus leading to injection of vecuronium bromide or rocuronium bromide and potassium chloride into a sensate person either because of the asserted limitations of midazolam or because it is not effectively administered in a massive IV dose. The three safeguards to which I have referred will reduce the risk of injection of the second and third drugs into a sensate person to well below a level that would establish a right to relief under Baze v. Rees.

The conclusions I have reached establish that plaintiffs have failed to show a probability of success on the merits of Count 2. However, wholly apart from that, there is a separate reason for which plaintiffs have failed to establish a probability of success on the merits of Count 2.

In proposing that they be executed with a lethal dose of [67] sodium thiopental, as they assert at paragraph 31 of their amended complaint, plaintiffs have failed to provide a comparison with, in the words of the Supreme Court, a "known and available alternative." That is from page 61 of the Baze decision. On this issue, the burden of proof is immaterial. Because aside from plaintiffs' failure to demonstrate a known

and available alternative, the defendants have affirmatively shown that sodium thiopental and pentobarbital, the only alternatives to which the plaintiffs have even alluded, are not available to the DOC.

In In Re Lombardi, 741 F.3d 888, an Eighth Circuit decision from earlier this year, the plaintiffs asserted that they were "not required to propose an alternative method of execution as an element of their Eighth Amendment claim." That's at page 895. The Eighth Circuit responded, in my view correctly, that this was "a plain misreading of the Supreme Court's decision in Baze v. Rees and the Eighth Amendment," also at page 895.

The Eighth Circuit, after quoting the passage in Baze, which requires comparison "to the known and available alternative," cited cases from the Fifth Circuit, Raby v. Livingston, 600 F.3d 552, with the relevant discussion at pages 560 and '61, a Fifth Circuit decision from 2010; and the Sixth Circuit, Cooey v. Strickland, which I have already discussed, for the proposition, with which I agree, that it is incumbent [68] upon a prisoner who challenges an execution protocol under Baze to demonstrate that the risk created by the challenged protocol is substantial when compared to the known and available alternatives. Indeed, in the Raby decision, 600 F.3d at page 561, the Fifth Circuit described this as "the second step of the Baze test."

The only alternative short-acting barbiturate proposed by the plaintiffs as an alternative to midazolam is sodium thiopental, as alleged in paragraph 31 of the amended complaint. But sodium thiopental became unavailable in the United States long before these plaintiffs proffered it in this case as

an alternative to midazolam. In Pavatt v. Jones, which I've already discussed, 627 F.3d at page 1338, the Tenth Circuit noted that "sodium thiopental is now effectively unobtainable anywhere in the United States, thus requiring Oklahoma and other death penalty states to revise their lethal injection protocols."

In Sepulvado v. Jindal, 729 F.3d 413, a Fifth Circuit decision from 2013, at page 416, the Fifth Circuit noted that sodium thiopental had been unavailable since 2010. In Chavez v. Florida, 742 F.3d 1267, at page 1274, an Eleventh Circuit decision from earlier this year, Chief Judge Carnes made the same observation in his concurring opinion in which he also noted that in 2013 the European Union threatened to limit the supply of propofol, which caused Missouri authorities to revise [69] Missouri's protocol. Judge Carnes concluded, I believe correctly, that "an alternative drug that its manufacturer or its distributor or the FDA will not allow to be used for lethal injection purposes is no drug at all for Baze purposes," as stated on page 1275.

I conclude as a matter of law that the plaintiffs' reliance on sodium thiopental as an alternative to midazolam is altogether unavailing because there has been no showing that sodium thiopental is, in fact, an available alternative.

Plaintiffs have failed to establish a probability of success on the Eighth Amendment cruel and unusual punishment claim asserted in Count 2.

I will now turn to Count 4, the Eighth Amendment claim asserting unsound procedures and inadequate training.

COUNT 4 - EIGHTH AMENDMENT UNSOUND PROCEDURES AND INADEQUATE TRAINING

With respect to execution procedures and training to prepare the execution team to competently perform an execution by lethal injection, the revised Oklahoma protocol is at least as protective of the prisoner's interests as the protocol which was before the Court in Baze.

The following aspects of the protocol which passed muster in Baze are noteworthy. The individuals inserting the IV catheters were only required to have at least one year of professional experience. The prisoner's state of consciousness [70] or unconsciousness is determined by the warden and the deputy warden through visual inspection. The duty to watch for problems with the IV catheters and the tubing fell to the warden and the deputy warden. The list of professional categories approved for IV insertion was identical to Oklahoma's list, specifically a certified medical assistant, a phlebotomist, an EMT, a paramedic, or a military corpsman. The Kentucky protocol called for at least ten practice sessions per year. The Kentucky protocol called for the IV Team to establish primary and backup lines and to prepare two sets of lethal injection drugs.

In Baze, the petitioners specifically faulted the Kentucky protocol for lacking a systematic mechanism for monitoring anesthetic depth, as indicated at page 58 of the Baze decision. They maintained that the visual inspection performed by the warden and deputy warden was an inadequate substitute for more sophisticated procedures they proposed, such as the use of various types of monitoring equipment, as discussed at page 59.

Moreover, the Supreme Court, citing the Tenth Circuit's decision in Hamilton v. Jones, 472 F.3d 814, with the relevant discussion at page 817, a Tenth Circuit decision from 2007, concluded that "the risks of failing to adopt additional monitoring procedures are thus even more remote and attenuated than the risks proposed by the alleged inadequacies of Kentucky's procedures designed to ensure the delivery of [71] thiopental." That is at page 59.

On this point, the plurality opinion rejected the dissent's argument that "rough and ready tests for checking consciousness, calling the inmate's name, brushing his eyelashes, or presenting him with strong noxious odors" was necessary in order to "materially decrease the risk of administering the second and third drugs before the sodium thiopental has taken effect," as discussed by the Court at page 60.

This led to the Supreme Court's conclusion that "an inmate cannot succeed on an Eighth Amendment claim simply by showing one more step the state could take as a fail-safe for other independently adequate measures. This approach would serve no meaningful purpose and would frustrate the state's legitimate interest in carrying out a sentence of death in a timely manner." That's at pages 60 and 61.

In Muhammad v. Crews, 2013 West Law 6844489, a decision from the Middle District of Florida about a year ago, late 2013, a decision which was affirmed at 739 F.3d 683 earlier this year, with certiorari denied, 134 Supreme Court 894, which was on January 7th of this year, the district court observed at star page 8 that "the Florida protocol requires that the execution team confirm that the inmate is unconscious after administration of the first drug, midazolam hydrochloride. Thus, if done correctly, there is no

substantial risk of harm [72] from administration of the second and third drugs."

Although this is not a conclusion of law, an additional comment with respect to Warden Trammell may be appropriate here. My sense of the matter from the evidence, including listening very carefully to the testimony of Warden Trammell, is that the experience of the Lockett execution was in some ways repugnant to Warden Trammell. I am persuaded that Warden Trammell does not want a mishap like this to ever occur again, at least on her watch. Granting that Warden Trammell may, in some ways, be subject to criticism for playing what was arguably an overly passive role in the run-up to the Lockett execution, I quite easily find that her skills as an administrator have already manifested themselves in the training regimen that has been implemented since last September and will be very evident in the preparations for the upcoming executions.

Plaintiffs have not satisfied the Court that the lethal injection procedures and training regimen that are now in place present any substantial risk of serious harm within the meaning of the Court's holdings in Baze v. Rees. I accordingly conclude that plaintiffs have failed to establish a probability of success on the Eighth Amendment unsound procedures and inadequate training claim asserted in Count 4.

I now proceed to consider the claim asserted in Count 5 relating to notice and opportunity to be heard asserted under [73] the Eighth and Fourteenth Amendments.

COUNT 5 NOTICE AND OPPORTUNITY TO BE HEARD EIGHTH AND FOURTEENTH AMENDMENTS

The heart of this claim is plaintiffs' assertion that ten days is not constitutionally sufficient notice to the prisoner of the DOC's intentions with respect to the specific drug combination to be used. This proposition is essentially moot as to these plaintiffs because they have been given a minimum of several weeks' notice of the combination of drugs that will be administered. In any event, ten days' notice would be sufficient, even if not optimal.

This claim is foreclosed by the reasoning of the Fifth Circuit in Sepulvado v. Jindal, 729 F.3d 413, with the relevant discussion at pages 418 through 420, and the Eleventh Circuit in Wellons v. Commissioner, 754 F.3d 1260, with the relevant discussion at page 1267, another decision from earlier this year. I agree with the analysis of the courts in both of those cases and further elaboration is not necessary.

I will add, however, that the ten-day provision is not without a sound rationale. Inmates and others have succeeded in a number of instances in securing embargoes to cut off the supply of chemicals used in lethal injection. In some situations, eleventh-hour litigation has virtually become the norm. That eleventh-hour litigation is intended to forestall, after years of litigation on the merits as well as clemency [74] proceedings, the execution of a validly imposed sentence of death, a penalty which itself has repeatedly been held to be constitutional. Those who are charged with the responsibility to carry out a sentence of death by lethal injection need the ability to avail themselves of other options on relatively short notice.

I accordingly conclude that plaintiffs have failed to establish a probability of success on the notice and opportunity to be heard claim asserted in Count 5.

I now turn to Count 7, the Eighth and Fourteenth Amendment claim asserting experimentation on human subjects.

COUNT 7 - EIGHTH AND FOURTEENTH AMENDMENTS - EXPERIMENTATION ON HUMAN SUBJECTS

In this count, plaintiffs complain that the use of untried drugs by way of untested procedures will cause them to experience severe pain, needless suffering, and a lingering death.

In the Baze decision, at page 62, the Supreme Court stated, and here I am leaving out an internal citation, "Throughout our history, whenever a method of execution has been challenged in this Court as cruel and unusual, the Court has rejected the challenge. Our society has nonetheless steadily moved to more humane methods of carrying out capital punishment. The firing squad, hanging, the electric chair, and the gas chamber have each, in turn, given way to more humane [75] methods, culminating in today's consensus on lethal injection. The broad framework of the Eighth Amendment has accommodated this process toward more humane methods of execution and our approval of a particular method in the past has not precluded legislatures from taking the steps they deem appropriate in light of new developments to ensure humane capital punishment. There is no reason to suppose that today's decision will be any different." That is from page 62 of the Baze decision.

Thus, as the Sixth Circuit pointed out in Cooey, to which I've already referred more than once, 589 F.3d at page 229, "that the procedure has never before been used, does not itself establish that the procedure is cruel and unusual. The Supreme Court has previously

considered various modes of execution and has yet to find one violative of the Eighth Amendment." In short, I conclude that the Eighth Amendment does not immunize an individual from being the first person to be subjected to a new method of execution.

Count 7 fails as a factual matter and as a matter of law. As a factual matter, by plaintiffs' own count, execution with midazolam as part of a three-drug protocol has been accomplished 12 times. That's the plaintiffs' pleading at Docket Entry Number 159, page 58. This is not a new method, at least in the sense required for the Court to regard its use as human experimentation.

As a matter of law, the basic Baze test still controls. [76] These plaintiffs must establish that the state's lethal injection protocol creates a demonstrated risk of severe pain and that the risk is substantial when compared to the known and available alternatives. They have failed to do so.

I accordingly conclude that plaintiffs have failed to establish a probability of success on the human experimentation claim asserted in Count 7.

I now turn to the Count 8 claim relating to a right of access to information, counsel, and the courts.

COUNT 8 - RIGHT OF ACCESS TO INFORMATION, COUNSEL, AND THE COURTS

This claim is based on the First and Fourteenth Amendments. From plaintiffs' motion, Docket Entry Number 92 at page 15, and their preliminary hearing brief, Docket Entry Number 160 at page 7, it appears that plaintiffs assert a right essentially to have counsel physically present as a legal proctor of the IV insertion process. This conjures up an untenable scene

in which the prisoner's counsel is standing at the gurney, cell phone in hand, ready to dictate the information necessary to fill in the blanks on an emergency ex parte motion for stay if he or she takes issue with any part of the process as it unfolds.

The reality is that as execution by lethal injection is actually carried out, the prisoner's erstwhile right of access to the courts must, of necessity, give way to the execution [77] team's discharge of its duties as long as those who are carrying out the process are operating within the confines of a constitutionally sound lethal injection protocol. And I hasten to add that it would appear from plaintiffs' contention as to the very closeness of the scrutiny that they say is constitutionally required that protection of the identities of the execution team members would likely be impossible.

On this claim, I agree with the reasoning of Judge Wake of the District of Arizona in Towery v. Brewer, 2012 Westlaw 592749, from the District of Arizona, February 23, 2012, at star page 18, a decision that was affirmed by the Ninth Circuit at 673 F.3d 650, and here I'm leaving out internal citations and quotes. "Prisoners have a constitutional right of access to the courts that is adequate, effective, and meaningful. However, this right guarantees no particular methodology but rather the conferral of a capability. The capability of bringing contemplated challenges to sentences or conditions of confinement before the courts. Consequently, an inmate who brings a Section 1983 claim based on his right of access to the courts must be able to show that the infringing act somehow defeated his ability to pursue a legal claim. That is, a prisoner must show he suffered an actual injury as a result of the defendant's actions." That's at pages 348

and 49. "An actual injury is actual prejudice with respect to contemplated or existing litigation such as the inability to meet a filing [78] deadline or to present a claim. The right of access does not create an abstract freestanding right but exists to vindicate other rights."

No court has found a constitutional right for the prisoner to have counsel present to supervise the IV insertion process and I decline to be the first judge to so hold.

In Count 8, plaintiffs also assert a First Amendment right of access to information about their planned executions, as indicated in Docket Entry Number 92 at page 15, Docket Entry Number 160 at page 9, and Docket Entry Number 159 at pages 71 through 75.

I conclude that plaintiffs' reliance on the First Amendment is misplaced. The interests that plaintiffs, as prison inmates facing execution, would protect under this heading are protected to the extent that they are protected at all under the Due Process Clause of the Fourteenth Amendment and perhaps arguably under the Eighth Amendment as made applicable to the states through the Fourteenth Amendment. Measured by these provisions, the plaintiffs' right of access to information about their impending executions is adequately protected by the revised protocol, as I have already discussed.

To the extent that plaintiffs seek to avail themselves of the public's right of access to executions in Oklahoma, I conclude that even if they had standing to tie their claims to the general public's right of access, their claim would fail [79] substantially for the reasons articulated last Friday by Judge Heaton in Oklahoma Observer v. Patton, Case Number Civil 14-

0905, his order being Docket Entry Number 48 in that case.

I accordingly conclude that plaintiffs have failed to establish a probability of success on the right of access to information, counsel, and the courts as asserted in Count Number 8.

I now reach my conclusion.

CONCLUSION

Plaintiffs have failed to establish any of the prerequisites to a grant of preliminary injunctive relief.

They have failed to establish a probability of success on the merits of any of the five claims they assert for preliminary injunction purposes, even under the relaxed standard articulated in Kikumura v. Hurley, 242 F.3d 950, with the relevant discussion at page 955.

Plaintiffs have failed to demonstrate that absent a preliminary injunction they would suffer any non-speculative irreparable harm.

As to the third factor, the balance of the equities does not tip in plaintiffs' favor. Plaintiffs have been successfully prosecuted, convicted, and sentenced to death in proceedings that have withstood decades of trials, direct review, and collateral review. The equities of the matter strongly favor bringing their cases at long last to a [80] conclusion by carrying out the penalty that the courts have determined to have been constitutionally imposed.

Finally, I conclude that entry of a preliminary injunction would not be in the public interest. It is well-settled that as the Supreme Court said in its unanimous decision in Nelson v. Campbell, 541 U.S. 637, with the relevant discussion at page 6844, the

state has "a significant interest in meting out a sentence of death in a timely fashion."

And the Supreme Court also told us in Calderon v. Thompson, 523 U.S. 538, a decision from 1998, at page 556—and here again I'm omitting some citations and internal quotes. "When lengthy federal proceedings have run their course and a mandate denying relief has issued, finality acquires an added moral dimension. Only with an assurance of real finality can the state execute its moral judgment in a case. Only with real finality can the victims of crime move forward knowing the moral judgment will be carried out. To unsettle these expectations is to inflict a profound injury to the powerful and legitimate interest in punishing the guilty, an interest shared by the state and the victims of crime alike."

The motion of Plaintiffs Charles Warner, Richard Glossip, John Grant, and Benjamin Cole for preliminary injunction is without merit. It is in all things denied. A brief written order will be entered to memorialize this ruling.

I direct the parties to withdraw their exhibits. That is [81] routine for purposes of facilitating the parties getting the exhibits to the Tenth Circuit for review. So I do direct the parties to withdraw their exhibits. That is entirely separate from any questions about ultimate public access to the exhibits, which I have already addressed and which I hope the Department of Corrections will itself address very quickly.

Court will be in recess.

(COURT ADJOURNED.)

CERTIFICATE OF OFFICIAL REPORTER

I, Tracy Washbourne, Federal Official Realtime Court Reporter, in and for the United States District Court for the Western District of Oklahoma, do hereby certify that pursuant to Section 753, Title 28, United States Code that the foregoing is a true and correct transcript of the stenographically reported proceedings held in the above-entitled matter and that the transcript page format is in conformance with the regulations of the Judicial Conference of the United States.

Dated this 23rd day of December 2014.

/S/ Tracy Washbourne

Tracy Washbourne, RDR, CRR
Federal Official Court Reporter

UNITED STATES COURT OF APPEALS
TENTH CIRCUIT

No. 14-6244
(D.C. No. 5:14-CV-00665-F)

CHARLES F. WARNER, BENJAMIN R COLE, by and through his next friend ROBERT S. JACKSON, JOHN M. GRANT, and RICHARD E. GLOSSIP,

Plaintiffs - Appellants,

JAMES A. CODDINGTON, CARLOS CUESTA-RODRIGUEZ, NICHOLAS A. DAVIS, RICHARD S. FAIRCHILD, WENDELL A. GRISSOM, MARLON D. HARMON, RAYMOND E. JOHNSON, EMMANUEL A. LITTLEJOHN, JAMES D. PAVATT, KENDRICK A. SIMPSON, KEVIN R. UNDERWOOD, BRENDA. A ANDREW, SHELTON D. JACKSON, PHILLIP D. HANCOCK, JULIUS D. JONES, ALFRED B. MITCHELL, and TREMANE WOOD,

Plaintiffs,

v.

KEVIN J. GROSS, MICHAEL W. ROACH, STEVE BURRAGE, GENE HAYNES, FRAZIER HENKE, LINDA K. NEAL, EARNEST D. WARE, ROBERT C. PATTON, ANITA K. TRAMMELL, EDWARD EVANS, H-UNIT SECTION CHIEF X, and JOHN DOE EXECUTIONERS #1-10,

Defendants - Appellees.

APPEAL FROM THE
UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF OKLAHOMA

Submitted on the briefs:

Patti Palmer Ghezzi and Randy A. Bauman, Assistant Federal Public Defenders, Western District of Oklahoma, Oklahoma City, Oklahoma, and Mark Henricksen and Lanita Henricksen, Henricksen & Henricksen, Oklahoma City, Oklahoma, and Dale A. Baich and Robin C. Konrad, Assistant Federal Public Defenders, Phoenix, Arizona, for Plaintiffs-Appellants.

John D. Hadden, Jeb E. Joseph, and Aaron J. Stewart, Assistant Attorneys General, Oklahoma Attorney General's Office, Oklahoma City, Oklahoma, for Defendants-Appellees.

Before BRISCOE, Chief Judge, GORSUCH and MATHESON, Circuit Judges.

BRISCOE, Chief Judge.

Plaintiffs Charles Warner, Richard Glossip, John Grant, and Benjamin Cole, all Oklahoma state prisoners convicted of first-degree murder and sentenced to death, were among a group of twenty-one Oklahoma death-row inmates who filed this 42 U.S.C. § 1983 lawsuit challenging the constitutionality of the State of Oklahoma's lethal injection protocol. Plaintiffs, facing imminent execution, sought a preliminary injunction to prevent their executions until the district court could rule on the merits of their claims. The district court denied their request. Plaintiffs now appeal. Exercising jurisdiction pursuant to 28 U.S.C. § 1291, we agree with the

district court that plaintiffs have failed to establish a likelihood of success on the merits of their claims. We therefore affirm the decision of the district court.[1]

I

The Plaintiffs

In August 1997, plaintiff Charles Warner anally raped and murdered the eleven-month-old daughter of his girlfriend. Warner was subsequently convicted by a jury of first degree rape and first degree murder. *Warner v. State*, 144 P.3d 838, 856 (Okla. Crim. App. 2006). Warner was sentenced, in accordance with the jury's recommendation, to death for the murder conviction. *Id.*

In January 1997, plaintiff Richard Glossip, who at the time was working as the manager of an Oklahoma City motel, hired another motel employee, Justin Sneed, to kill the owner of the motel. Per Glossip's suggestion, Sneed carried out the murder by beating the owner to death with a baseball bat. Glossip was ultimately convicted by a jury of first degree malice murder and sentenced to death for that conviction. *Glossip v. State*, 157 P.3d 143, 147 (Okla. Crim. App. 2007).

In November 1998, plaintiff John Grant, at the time a prisoner at the Conner Correction Center in Hominy, Oklahoma, murdered a food service supervisor by repeatedly stabbing her with a prison-made shank. Grant was convicted by a jury of first degree malice

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[1] After examining the brief and appellate record, this panel has determined unanimously that oral argument would not materially assist in the determination of this appeal. *See* Fed. R. App. P. 34(a)(2); 10th Cir. R. 34.1(G). The case is, therefore, submitted without oral argument.

murder and sentenced to death. *Grant v. State*, 58 P.3d 783, 788 (Okla. Crim. App. 2002).

In December 2002, plaintiff Benjamin Cole murdered his nine-month-old daughter by pushing her legs towards her head as she lay on her stomach crying. Cole's actions snapped his daughter's spine in half and resulted in a complete tear of her aorta. Cole was subsequently convicted by a jury of first degree murder and sentenced to death. *Cole v. State*, 164 P.3d 1089, 1092 (Okla. Crim. App. 2007).

All four of the plaintiffs have exhausted their state and federal court remedies and the State of Oklahoma has established specific execution dates for each of them. Plaintiff Warner is scheduled to be executed on January 15, 2015. Plaintiff Glossip is scheduled to be executed on January 29, 2015. Plaintiff Grant is scheduled to be executed on February 19, 2015. Plaintiff Cole is scheduled to be executed on March 5, 2015.

The State's Lethal Injection Protocol

For many years, the State of Oklahoma utilized a three-drug lethal injection protocol comprised of sodium thiopental, pancuronium bromide, and potassium chloride. "The first drug, sodium thiopental . . . , is a fast-acting barbiturate sedative that induces a deep, comalike unconsciousness when given in the amounts used for lethal injection." *Baze v. Rees*, 533 U.S. 35, 44 (2008). "The second drug, pancuronium bromide . . . , is a paralytic agent that inhibits all muscular-skeletal movements and, by paralyzing the diaphragm, stops respiration."[2] *Id.* "Potassium

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[2] In recent years, the State of Oklahoma has substituted vecuronium bromide for pancuronium bromide. And, for the executions of the four plaintiffs in this appeal, the State of

chloride, the third drug, interferes with the electrical signals that stimulate the contractions of the heart, inducing cardiac arrest." *Id.*

Since approximately 2010, the State of Oklahoma has been unable to obtain sodium thiopental, either commercially manufactured or compounded, for use in executions. Although the State of Oklahoma was able, for a short time, to obtain and utilize an alternative barbiturate, pentobarbital, during executions, that drug has also become unavailable to the State of Oklahoma for use in its executions. *See Pavatt v. Jones*, 627 F.3d 1336, 1337 (10th Cir. 2010) (addressing challenge to State of Oklahoma's planned use of pentobarbital).

In approximately early 2014, the State of Oklahoma decided to substitute midazolam hydrochloride (midazolam), a sedative in the benzodiazepine family of drugs, for sodium thiopental and pentobarbital. In other words, the State of Oklahoma intended for midazolam to be utilized, as the first drug in its lethal injection protocol, to render an inmate unconscious prior to the injection of the second and third drugs.

The Clayton Lockett Execution

On April 29, 2014, inmate Clayton Lockett was the first Oklahoma state prisoner to be executed using midazolam as part of the lethal injection execution protocol. As described at length in the district court's oral ruling, Lockett's execution, though ultimately successful, was a procedural disaster. The execution team, over the course of nearly an hour, made at least

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Oklahoma has expressed its intent to substitute rocuronium bromide for vecuronium bromide. These substitutions are not at issue in this appeal.

twelve attempts to establish intravenous (IV) access to Lockett's cardiovascular system. The team ultimately believed, incorrectly, that they had successfully established IV access through Lockett's right femoral vein. And the team compounded this error by placing a hemostat on the IV line and covering the IV injection access point with a sheet.

The execution team proceeded to inject Lockett with the three-drug protocol. In doing so, the team declared Lockett to be unconscious following the injection of the midazolam and prior to the injection of the vecuronium bromide and the potassium chloride. Shortly after the injection of part, but not all, of the potassium chloride, however, Lockett began to move and speak. In particular, witnesses heard Lockett say: "This shit is fucking with my mind," "something is wrong," and "The drugs aren't working." ROA, Vol. 3 at 865.

The execution team lifted the sheet and observed a large area of swelling, smaller than a tennis ball but larger than a golf ball, near the IV access point. The execution team determined that the IV had infiltrated, meaning that the IV fluid, rather than entering Lockett's blood stream, had leaked into the tissue surrounding the IV access point. The team stopped administration of the remaining potassium chloride and attempted, unsuccessfully, to insert the IV into Lockett's left femoral vein.

The execution team, after concluding that Lockett had no viable veins left in which to obtain IV access, terminated the execution process approximately 33 minutes after the midazolam was first injected into Lockett. Approximately ten minutes later, Lockett was pronounced dead, even though the execution team

had not injected the intended amount of potassium chloride into Lockett.

A subsequent autopsy determined that there was a concentration of midazolam in the tissue near the IV insertion site in Lockett's right groin area. The autopsy also determined, however, that certain amounts of all three drugs had been distributed throughout Lockett's body, and that the concentration of midazolam in Lockett's blood was greater than the concentration required to render an average person unconscious.

Oklahoma's Revised Execution Procedures

After conducting an investigation into Lockett's execution, the State of Oklahoma adopted a new execution protocol, effective September 30, 2014. As the district court found, the new protocol "is noticeably more detailed" in terms of the "procedures for establishing IV access to the offender's cardiovascular system, the procedure for administering the chemicals, and the procedures for dealing with mishaps or unexpected contingencies." *id.* at 870. In particular, "[t]ne new protocol provides for the insertion of a primary IV catheter and a backup IV catheter," *id.* at 875, and allows for an execution to be postponed if viable IV sites cannot be established within an hour's time, *Id.* at 876. The new protocol "also includes detailed provisions with respect to training and pre-execution preparation of the members of the execution team." *Id.* at 870.

The new protocol gives the Director of Oklahoma's Department of Corrections (DOC) "four alternatives with respect to the combination of drugs to be used in the lethal injection process." *Id.* at 874. The first alternative "calls for the administration of 5,000

milligrams of pentobarbital in a one-drug procedure." *Id.* The second alternative "provides for the administration of 5,000 milligrams of sodium pentothal . . . in a one-drug procedure." *Id.* The third alternative "provides for the administration of 500 milligrams of midazolam and 500 milligrams of hydromorphone." *Id.* The fourth alternative "provides for the administration of 500 milligrams of midazolam, 100 milligrams of vecoronium bromide, and 240 milliequivalents of potassium chloride." *Id.* Under the new protocol, the Director "shall have the sole discretion to determine which chemicals will be used for the scheduled execution." *Id.* "This decision is required to be provided to the offender in writing ten calendar days before the scheduled execution date." *Id.*

It is undisputed that the Director has selected the fourth alternative, i.e., the midazolam/vecoronium bromide/potassium chloride combination, for use in the executions of the four plaintiffs in this case and has notified plaintiffs of that fact.[3]

II

Plaintiffs' Complaint

On June 25, 2014, the four plaintiffs, along with seventeen other Oklahoma inmates sentenced to death, initiated this action by filing a 42 U.S.C. § 1983 complaint against the Director and various other DOC officials. The complaint alleged eight counts. Of relevance to this appeal are Counts 2 and 7.

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[3] In their appellate brief, defendants acknowledge that they only ha[ve] immediate plans to use" the fourth alternative in carrying out lethal injections. Aplee. Br. at 12.

Count 2 challenges, as violative of the Eighth Amendment, the defendants' proposed use of midazolam in Oklahoma's lethal injection protocol. In support, Count 2 alleges that the inherent characteristics of midazolam—including an alleged ceiling effect (i.e., a certain dosage level beyond which incremental increases in dosage would have no corresponding incremental effect) and an alleged risk of paradoxical reactions (such as agitation, involuntary movements, hyperactivity, and combativeness)—render it unsuitable "as a stand-alone anesthetic," ROA, Vol. 1 at 960, and thus poses a substantial risk that an inmate would experience "severe pain, needless suffering, and a lingering death," *id.* at 963. In addition, the plaintiffs allege as part of Count 2 that there is a substantial risk that midazolam will, as exemplified by the Lockett execution, be negligently administered and thus result in an inmate consciously experiencing the painful effects of the second and third drugs utilized in the execution protocol.

Count 7, entitled "Eighth Amendment Experimentation on Captive Human Subjects," alleges that defendants, "[b]y attempting to conduct executions with an ever-changing array of untried drugs of unknown provenance, using untested procedures, . . . are engaging in a program of biological experimentation on captive and unwilling human subjects." *Id.* at 979. Count 7 further alleges that there is no "scientifically sound expectation that these experiments will succeed in producing an execution that does not inflict severe pain, needless suffering, or a lingering death." *Id.* According to Count 7, the defendants "have acted and will act with deliberate indifference to the[se] [identified] risks," and that "[if] the attempted executions of the Plaintiffs are allowed

to proceed, the Plaintiffs . . . will be subjected to cruel and unusual punishment." *Id.* at 980.

Plaintiffs' Motion for Preliminary Injunction

On November 10, 2014, the four plaintiffs in this appeal filed a motion for preliminary injunction. The motion asked the district court to "maintain the status quo by barring Defendants from implementing" the new protocol and executing the four plaintiffs "until this litigation is complete and th[e] Court has had a chance to rule on the merits." *Id.* at 1082. In support, the four plaintiffs alleged, in pertinent part, that they could demonstrate a likelihood of success on Counts 2 and 7 of their complaint.[4]

In December 2014, the district court held a three-day evidentiary hearing on plaintiffs' motion. Plaintiffs presented testimony from ten lay witnesses and four expert witnesses and submitted numerous exhibits. Defendants presented testimony from one expert witness, a DOC official who oversaw the investigation into the Lockett execution, and the medical examiner who performed an autopsy on Lockett's body.

The District Court's Ruling on Plaintiffs' Motion

On December 22, 2014, the district court ruled from the bench and denied plaintiffs' motion for preliminary injunction. In doing so, the district court concluded that plaintiffs failed to establish a likelihood of success on the merits of Counts 2 or 7. The district court also concluded that plaintiffs "failed to establish any of the

[4] The motion also alleged a likelihood of success on the merits of Counts 4, 5 and 6 of the complaint. Those counts are not, however, at issue in this appeal.

[other] prerequisites to a grant of preliminary injunctive relief." ROA, Vol. 3 at 930.

Plaintiffs filed a notice of appeal on December 23, 2014. They have since filed an emergency motion for stay of execution pursuant to Federal Rules of Appellate Procedure 8 and 27.

III

We review a district court's decision to deny a preliminary injunction under a deferential abuse of discretion standard. *Citizens United v. Gessler*, — F.3d —, 2014 WL 6685443 *8 (10th Cir. Nov. 12, 2014). "Under this standard, we examine the district court's legal determinations de novo, and its underlying factual findings for clear error." *Id.* (internal quotation marks omitted). Thus, we will find an abuse of discretion if the district court denied the preliminary injunction on the basis of a clearly erroneous factual finding or an error of law. *Id.*

"A preliminary injunction is an 'extraordinary and drastic remedy.'" *Munaf v. Geren*, 553 U.S. 674, 689 (2008) (quoting 11A C. Wright, A. Miller, & M. Kane, *Federal Practice and Procedure* § 2948, p. 129 (2d ed. 1995)). "A plaintiff seeking a preliminary injunction must establish that he is likely to succeed on the merits, that he is likely to suffer irreparable harm in the absence of preliminary relief, that the balance of equities tips in his favor, and that an injunction is in the public interest." *Winter v. Natural Res. Def. Council, Inc.*, 555 U.S. 7, 20 (2008).[5]

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[5] Plaintiffs argue on appeal that they need only "'raise[] questions going to the merits [of Counts 2 and 7] so serious, substantial, difficult and doubtful, as to make them a fair ground for litigation.'" Aplt. Br. at 33 (quoting *Kikumura v. Hurley*, 242 F.3d 950, 955 (10th Cir. 2001)). We are not persuaded, however,

A motion for stay pending appeal is subject to the exact same standards. In other words, "[i]n ruling on such a request, this court makes the same inquiry as it would when reviewing a district court's grant or denial of a preliminary injunction." *Homans v. City of Albuquerque*, 264 F.3d 1240, 1243 (10th Cir. 2001).

A. Plaintiffs' likelihood of success on the merits of Counts 2 and 7

The district court in this case grounded its denial of plaintiffs' motion for preliminary injunction, in large measure, on its conclusion that plaintiffs failed to establish a likelihood of success on the merits of Counts 2 and 7. On appeal, plaintiffs assert a number of challenges to that conclusion. In addressing those challenges, we begin by outlining the general principles applicable to Counts 2 and 7. We then review the precise basis for the district court's conclusion that plaintiffs failed to establish a likelihood of success on these two counts. Lastly, we shall explain why, in our view, plaintiffs' challenges to the district court's decision lack merit.

1. Applicable constitutional principles

This is far from the first constitutional challenge mounted to a State's proposed method of execution. Consequently, we have several related and well-

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that this relaxed standard is consistent with Supreme Court precedent. Indeed, in *Hill v. McDonough*, 547 U.S. 573, 584 (2006), the Supreme Court emphasized that "inmates seeking time to challenge the manner in which the State plans to execute them must," in pertinent part, establish "a significant possibility of success on the merits."

In any event, we are not persuaded, based upon our review of the record on appeal, that plaintiffs can satisfy the relaxed standard that they urge us to adopt.

established principles upon which we can rely. The first is that capital punishment itself has been held not to violate the Eighth Amendment's prohibition against the infliction of cruel and unusual punishments. *Baze*, 553 U.S. at 47. Second, the Supreme Court "has never invalidated a State's chosen procedure for carrying out a sentence of death as the infliction of cruel and unusual punishment." *Id.* at 48. Third, the Court has recognized "that there must be a means of carrying . . . out" capital punishment and that "[s]ome risk of pain is inherent in any method of execution—no matter how humane—if only from the prospect of error in following the required procedure." *Id.* at 47. Thus, the Court has emphasized, "the Constitution does not demand the avoidance of all risk of pain in carrying out executions." *Id.* More specifically, "because an execution method may result in pain, either by accident or as an inescapable consequence of death, does not establish the sort of 'objectively intolerable risk of harm' that qualifies as cruel and unusual." *Id.*

All of this said, it remains true "that subjecting individuals to a risk of future harm—not simply actually inflicting pain—can qualify as cruel and unusual punishment." *Id.* at 49. "To establish that such exposure violates the Eighth Amendment, however, the conditions presenting the risk must be '*sure or very likely* to cause serious illness and needless suffering,' and give rise to 'sufficiently *imminent* dangers.'"[6] *Id.* at 49-50 (quoting *Helling v. McKinney*,

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[6] These key holdings are found in Chief Justice Roberts' plurality opinion in *Baze*. Although that opinion was joined by only three Justices, it represents the "narrowest grounds" for the judgment in the case, and thus contains the holdings of the Court. *Marks v. United States*, 430 U.S. 188, 193 (1977); *see Chavez v. Florida SP Warden*, 742 F.3d 1267, 1271-1272 n.4 (11th Cir. 2014) (reaching same conclusion); *Dickens v. Brewer*, 631 F.3d

509 U.S. 25, 33, 34-35 (1993)) (emphasis added in *Baze*). In other words, "there must be a 'substantial risk of serious harm,' an 'objectively intolerable risk of harm' that prevents prison officials from pleading that they were 'subjectively blameless for purposes of the Eighth Amendment.'" *Id.* (quoting *Farmer v. Brennan*, 511 U.S. 825, 842, 846, and n.9 (1994)). Finally, the Supreme Court has stated that "[a] stay of execution may not be granted" on the basis of an Eighth Amendment challenge to a State's lethal injection protocol "unless the condemned prisoner establishes that the State's lethal injection protocol creates a demonstrated risk of severe pain" and "that the risk is substantial when compared to the known and available alternatives." *Id.* at 61.

2. The district court's assessment of Counts 2 and 7

With these principles in mind, we turn to Counts 2 and 7 of plaintiffs' complaint and the district court's analysis of them. Count 2 alleges, in essence, that the use of midazolam during a lethal injection procedure presents a substantial risk of serious harm both because of the inherent characteristics of midazolam, including most notably its alleged ceiling effect and its alleged risk of paradoxical reactions, and because of the likelihood that it will be negligently administered by prison officials. Count 7 effectively alleges that defendants, by adopting a revised lethal injection protocol that includes a new drug, i.e., midazolam, and new procedures, lack any reasonable expectation that the revised protocol and procedures will avoid the infliction of severe pain, needless suffering, or a lingering death. And both counts alleged that "[i]t

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1193, 1145-1146 (9th Cir. 2011) (same); *Jackson v. Danberg*, 594 F.3d 210, 222-223 (3d Cir. 2010) (same).

would be feasible" for defendants "to use sodium thiopental in a single-drug formulation to" carry out the executions, ROA, Vol. 1 at 946, and that the use of sodium thiopental "would significantly reduce the substantial risk of severe pain posed by" midazolam, *id.* at 946-947.

In addressing plaintiffs' likelihood of success on these allegations, the district court found that "[t]he 500 milligram dosage of midazolam, as called for in . . . the revised protocol, is many times higher than a normal therapeutic dose of midazolam" and "will result in central nervous system depression as well as respiratory arrest and cardiac arrest." ROA, Vol. 3 at 892. The district court further found that a 500 milligram dosage of midazolam "is highly likely to render the person unconscious and insensate during the remainder of the procedure" and that, "[c]onsequently, analgesia, from midazolam or otherwise, is not necessary." *Id.* at 892-893. In sum, the district court found that "[t]he proper administration of 500 milligrams of midazolam . . would make it a virtual certainty that an individual will be at a sufficient level of unconsciousness to resist the noxious stimuli which could occur from application of the second and third drugs" called for by the revised protocol, and that "a 500 milligram dose [of midazolam] alone would be likely to cause death by respiratory arrest within an hour and probably closer to 30 minutes." *Id.* at 893.

The district court, relatedly, made factual findings relevant to plaintiffs' claims that midazolam has a ceiling effect and a risk of paradoxical reactions, either of which, according to plaintiffs, could result in an inmate consciously experiencing the effects of the second and third drugs in the revised protocol. With

respect to the purported ceiling effect, the district court expressly found "persuasive[]" the testimony of defendants' expert witness, Dr. Roswell Lee Evans, the Dean of the School of Pharmacy at Auburn University. *Id.* at 894. As summarized by the district court, Dr. Evans testified that "whatever the ceiling effect of midazolam may be with respect to anesthesia, which takes effect at the spinal cord level, there is no ceiling effect with respect to the ability of a 500 milligram dose of midazolam to effectively paralyze the brain." *Id.* This "phenomenon," according to Dr. Evans, "is not anesthesia but does have the effect of shutting down respiration and eliminating the individual's awareness of pain." *Id.* Thus, the district court essentially rejected plaintiffs' allegation that the 500 milligram dose of midazolam called for in the revised protocol carries a substantial risk

The district court likewise found Dr. Evans' testimony persuasive with respect to the risk of a paradoxical reaction. In particular, the district court found "that with a low therapeutic dose of midazolam there would be less than a 1 percent incidence of a paradoxical reaction." *Id.* at 895. The district court in turn found that "[n]o data [was] available to show what . . . the likelihood of a paradoxical reaction would be with a 500 milligram IV dose of midazolam." *Id.* Thus, the district court found that risk "speculative" at best. *Id.*

As for the likelihood of negligent administration of midazolam, the district court "conclude[d], as a matter of law, that the revised lethal injection protocol adopted by [defendants] is facially constitutional when measured by the principles promulgated in *Baze*." *Id.* at 916 (emphasis added). In doing so, the district court "place[d] considerable reliance . . . on three aspects of

the [revised] lethal injection protocol." *Id.* at 917. These included "the requirement that both primary and backup IV access sites be established," "that confirmation of the viability of the IV sites is specifically required," and "that the offender's level of consciousness must be monitored throughout the procedure." *Id.* The district court in turn "conclude[d] on the basis of the evidence before [it] that plaintiffs ha[d] failed to establish that proceeding with the[ir] execution[s] . . . on the basis of the revised protocol present[ed] a risk that is 'sure or very likely to cause serious illness and needless suffering,' amounting to 'an objectively intolerable risk of harm.'" *Id.* at 916.

As for plaintiffs' allegation that "[i]t would be feasible to use sodium thiopental in a single-drug formulation to" carry out their executions, ROA, Vol. 1 at 946, the district court found this allegation groundless. In particular, the district court noted that "the defendants have affirmatively shown that sodium thiopental and pentobarbital . . . are not available to the DOC." ROA, Vol. 3 at 918. The district court also noted that the defendants' evidence was consistent with the finding in *Pavatt* that "sodium thiopental is now effectively unobtainable anywhere in the United States, thus requiring Oklahoma and other death-penalty states to revise their lethal injection protocols." 627 F.3d at 1338 n.1

As for the allegations of Count 7, the district court found that "[a]s a factual matter, by plaintiffs' own count, execution with midazolam as part of a three-drug-protocol has been accomplished [nationwide] 12 times." ROA, Vol. 3 at 926. Consequently, the district court found "[t]his is not a new method, at least in the sense required for the Court to regard its use as human experimentation." *Id.* The district court also

concluded, as a matter of law, that the plaintiffs failed to "establish that the state's lethal injection protocol creates a demonstrated risk of severe pain and that the risk is substantial when compared to the known and available alternatives." *Id.* at 927.

3. The plaintiffs' challenges to the district court's analysis

In their appeal, plaintiffs mount several challenges to the district court's analysis.[7] As we explain in greater detail below, we conclude that all of these challenges lack merit.

a. The district court's application of Baze

According to plaintiffs, "[t]he district court misapplied *Baze* in four key ways." Aplt. Br. at 37. First, they argue, the district court "decided that [plaintiffs] could not succeed because they failed to present an alternative remedy." *Id.* "Second," plaintiffs argue, the district court "improperly assumed that the grounds asserted in this case were similar to those asserted in *Baze*, therefore skewing the court's risk assessment." *Id.* "Third," plaintiffs argue, the district court "determined that any potential risk was cured by three factors built into the [revised] protocol." *Id.* Lastly, plaintiffs argue that the district court "failed to consider evolving standards of decency in its analysis." *Id.*

The first three of these arguments derive from the undisputed fact that the plaintiffs in this case, unlike the petitioners in *Baze*, are challenging the inherent characteristics of a drug proposed to be used as part

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[7] We note that plaintiffs are not appealing the district court's decision regarding the negligent administration portion of Count 2.

of their lethal injection protocol. In *Baze*, the petitioners asserted only a "risk that the [lethal injection] protocol's terms might not be properly followed" and, to remedy that concern, they "propose[d] an alternative protocol." 553 U.S. at 41. The petitioners in *Baze* conceded that the drugs proposed to be used in their executions, if properly administered, would "result in a humane death." *Id.*

As we have already noted, the Supreme Court in *Baze* held, in addressing the petitioners' claims, that "[a] stay of execution may not be granted on grounds such as those asserted here unless the condemned prisoner establishes that the State's lethal injection protocol creates a demonstrated risk of severe pain." *Id.* at 61. And, the Court further held, "[h]e must show that the risk is substantial when compared to the known and available alternatives." *Id.* Although plaintiffs assert that this latter requirement, i.e., proof of "known and available alternatives," is inapplicable when the challenge at issue concerns the inherent characteristics of a drug proposed to be used as part of the lethal injection protocol, this court previously decided otherwise in *Pavatt*.[8] Like the plaintiffs in this case, the plaintiff in *Pavatt* asserted an Eighth Amendment challenge to a replacement drug (pentobarbital) proposed to be used as part of his lethal injection protocol. Specifically, the plaintiff's expert witness in *Pavatt* "expressed concern that there was insufficient data to allow [the State of Oklahoma] to determine the proper amount of pentobarbital to use as part of its protocol." 627 F.3d at 1340. In addressing this claim, both the district court and this court in *Pavatt* relied on the principles outlined in

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[8] Couriously, plainiffs make no mention of *Pavatt* in either of their appellate briefs.

Baze. In particular, this court expressly noted that, to obtain a stay of execution, the plaintiff would have to establish "'that the risk is substantial when compared to the known and available alternatives.'" *Id.* at 1339 (quoting *Baze*, 553 U.S. at 61). Quite clearly, we are bound by *Pavatt*, "absent superseding en banc review or Supreme Court decisions."[9] *Rezaq v. Nalley*, 677 F.3d 1001, 1012 n.5 (10th Cir. 2012). And, as the district court noted, plaintiffs have not identified any known and available alternatives.

In any event, this second *Baze* requirement is not outcome-determinative in this case because the plaintiffs have failed to establish that the use of midazolam in their executions, either because of its inherent characteristics or its possible negligent administration, creates a demonstrated risk of severe pain. In other words, it is not even necessary in this case to "reach the second step of the *Baze* test." *Raby v. Livingston*, 600 F.3d 552, 560 (5th Cir. 2010).

To the extent that plaintiffs are asserting that the differences in claims renders inapplicable *Baze's* other holdings, including its first requirement for a stay of execution (i.e., the demonstration of a risk of severe pain), we disagree. The constitutional principles

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[9] Even if we were free to decide the issue in the first instance, we would agree with the Eighth Circuit that, even in the context of a challenge to a particular drug proposed to be used as part of a lethal injection protocol, *Baze* requires the plaintiff to establish, in part, the existence of a "known and available alternative." *See In re Lombardi*, 741 F.3d 888, 895-896 (8th Cir. 2014) (concluding, in the context of a challenge to the proposed use of compounded pentobarbital, that *Baze* required the plaintiffs, in the absence of proof that the State purposefully intended to inflict unnecessary pain, to demonstrate a feasible and more humane alternative method of execution).

announced in *Baze*, as we read them, were not confined to claims of negligent administration of lethal injection protocols. Rather, they were intended to apply to all challenges to "a State's chosen procedure for carrying out a sentence of death," 553 U.S. at 48. Thus, we conclude that the district court did not err in applying those principles in assessing plaintiffs' likelihood of success on the merits of Counts 2 and 7.

As for the plaintiffs' third argument, we see no error on the part of the district court in relying on three aspects of the revised lethal injection protocol (i.e., the requirement that both primary and backup IV sites be established, the requirement that the viability of these IV sites are confirmed prior to administration of any drugs, and the requirement that the inmate's level of consciousness be monitored throughout the entire execution procedure). As the district court's oral ruling makes clear, this reliance was not relevant to its rejection of plaintiffs' claims regarding the inherent characteristics of midazolam, but rather to its rejection of plaintiffs' claim of negligent administration. In any event, we see nothing in this aspect of the district court's ruling that is contrary to, or a misapplication of, *Baze*.

That leaves only plaintiffs' argument that the district court violated *Baze* by "fail[ing] to consider evolving standards of decency in its analysis." Aplt. Br. at 37. In support, plaintiffs complain that "Florida is the only other state that has carried out executions using a three-drug protocol with midazolam as the first drug," *id.* at 44, "there have been reports of prisoner movement in Florida," *id.* at 45, and that these facts alone render the defendants' revised lethal injection protocol "objectively intolerable," *id.* Nothing in *Baze*, however, supports these arguments.

To be sure, the protocol at issue in *Baze* enjoyed widespread use at the time of the Supreme Court's decision. But that fact was not critical to, nor was it made a part of, the Supreme Court's key holdings in *Baze*. Indeed, if that were a requirement, it would effectively prevent any state from revising its execution protocol.

b. The district court's reliance on Dr. Evans' testimony

Plaintiffs next argue that the district court abused its discretion by relying on Dr. Evans' testimony and that, in turn, the district court's factual findings that were based on Dr. Evans' testimony were clearly erroneous. We address these arguments in turn.

Plaintiffs begin by asserting that "the district court abused its discretion in relying on Dr. Evans' testimony at all because his opinions are unsupported ipse dixit . . . and based on fundamental errors in his analysis." Aplt. Br. at 46. "Federal Rule of Evidence 702 requires a district court to assess proffered expert testimony to ensure it is both relevant and reliable." *United States v. Avitia-Guillen*, 680 F.3d 1253, 1256 (10th Cir. 2012) (citing *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 589 (1993) (scientific knowledge); *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 141 (1999) (technical and other specialized knowledge)). A district court "generally must first determine whether the expert is qualified by knowledge, skill, experience, training, or education to render an opinion." *Id.* (internal quotation marks omitted). "If the expert is sufficiently qualified, then the court must determine whether the expert's opinion is reliable by assessing the underlying reasoning and methodology." *Id.* (internal quotation marks omitted). "Although a district court has discretion in how it

performs its gatekeeping function, when faced with a party's objection, the court must adequately demonstrate by specific findings on the record that it has performed its duty as gatekeeper." *Id.* (internal quotation marks and brackets omitted).

Generally speaking, we review de novo whether the district court actually performed its gatekeeper role in the first instance and whether it applied the proper standard in admitting expert testimony. *Id.* And, in turn, if the district court performed its gatekeeper role and applied the proper legal standard, we then review for abuse of discretion the district court's decision to admit or exclude the testimony. *Id.* Under this abuse of discretion standard, we will "reverse only if the district court's conclusion is arbitrary, capricious, whimsical or manifestly unreasonable or when we are convinced that the district court made a clear error of judgment or exceeded the bounds of permissible choice in the circumstances." *Id.* (internal quotation marks omitted).

In this case, there is no question that the district court actually performed its gatekeeper role and applied the proper standards in doing so. During its oral ruling on plaintiffs' motion for preliminary injunction, the district court expressly noted that "*Daubert* . . . and *Kumho* . . . establish a gatekeeper function for trial judges under Rule 702 of the Federal Rules of Evidence." ROA, Vol. 3 at 886 (emphasis added). The district court in turn, noting that plaintiffs were challenging "both Dr. Evans' qualifications and his methodology," *id.* at 887, proceeded to outline in detail the *Daubert* and *Kumho* standards, *id.* at 886-889. In our view, the district court considered and applied the correct standards.

We are thus left to determine whether the district court abused its discretion in admitting and in turn relying on Dr. Evans' testimony. As a threshold matter, the district court "reject[ed] plaintiffs' challenge to Dr. Evans' qualifications," noting that "[h]is qualifications go far beyond those of an everyday pharmacist and his clinical experience is an obvious adjunct of his academic attainments." *Id.* at 890. After reviewing Dr. Evans' curriculum vitae and testimony, we conclude that the district court did not abuse its discretion in so ruling. Dr. Evans is the Dean of the Auburn University Harris School of Pharmacy and holds a Pharm.D. from the University of Tennessee. Dr. Evans' academic experience is extensive, having taught as a professor at three different universities over the course of approximately forty years. Dr. Evans has also worked in a variety of clinical pharmacy settings. As the district court aptly noted, Dr. Evans' qualifications are "considerable." *Id.*

The district court then evaluated the reliability of "Dr. Evans' testimony . . . with respect to the risk that a 500 milligram dose of midazolam will fail to induce a state of unconsciousness and his criticisms of the [plaintiffs'] contentions that there is a ceiling effect that is relevant to the determination of whether the prisoner will experience pain after IV administration of 500 milligrams of midazolam." *Id.* at 891. The district court concluded that this "testimony was the product of reliable principles and methods reliably applied to the facts of this case." *Id.* Although plaintiffs point to what they perceive as a number of errors in Dr. Evans' testimony, we conclude these errors were not sufficiently serious to render unreliable Dr. Evans' testimony regarding the likely effect of a 500 milligram dose of midazolam, or to persuade us that the district court's decision to admit Dr. Evans'

testimony amounted to an abuse of discretion. Moreover, we note that plaintiffs do not argue that the district court failed to make adequate *Daubert* findings regarding Dr. Evan's testimony.

That leaves only the plaintiffs' challenge to the district court's factual findings regarding midazolam. After admitting Dr. Evans' testimony, the district court relied on that testimony to make a series of factual findings. To begin with, the district court found that "[t]he 500 milligram dosage of midazolam . . . is many times higher than a normal therapeutic dose of midazolam" and "will result in central nervous system depression as well as respiratory arrest and cardiac [ar]rest." *Id.* at 892. In turn, the district court found that a 500 milligram dosage of midazolam "is highly likely to render the person unconscious and insensate during the remainder of the [lethal injection] procedure" and that, "[c]onsequently, analgesia, from midazolam or otherwise, is not necessary." *Id.* at 893-893. In sum, the district court found that "[t]he proper administration of 500 milligrams of midazolam . . . would make it a virtual certainty that any individual will be at a sufficient level of unconsciousness to resist the noxious stimuli which could occur . . . from the administration of the second and third drugs . . . , assuming that proper intravenous access has been established." *Id.* at 893. The district court also found that, "because midazolam is water soluble" and "crosses the blood brain barrier very quickly," "[t]he administration of a 500 milligram dose alone would be likely to cause death by respiratory arrest within an hour and probably closer to 30 minutes." *Id.*

The district court also relied on Dr. Evans' testimony to rebut plaintiffs' claims that midazolam has both a ceiling effect and a risk of paradoxical

effects. With respect to the alleged ceiling effect, the district court found that "Dr. Evans testified persuasively, in substance, that whatever the ceiling effect of midazolam may be with respect to anesthesia, which takes effect at the spinal cord level, there is no ceiling effect with respect to the ability of a 500 milligram dose of midazolam to effectively paralyze the brain, a phenomenon which is not anesthesia but does have the effect of shutting down the individual's awareness of pain." *Id.* at 894. In addition, the district court found that "[t]he dosage at which the ceiling effect may occur at the spinal cord level is unknown because no testing to ascertain the level at which the ceiling effect occurs has been documented." *Id.* As for paradoxical effects, the district court acknowledged that, according to midazolam's product label, "[t]he use of midazolam presents a risk of paradoxical reactions or side effects such as agitation, involuntary movements, hyperactivity, and combativeness." *Id.* at 894-895. The district court found that "[t]he likelihood that a paradoxical reaction will occur in any particular instance is speculative, but . . . occurs with the highest frequency in low therapeutic doses." *Id.* at 895. Even then, the district court found, "there would be less than a 1 percent incidence of a paradoxical reaction." *Id.* And, the district court noted, "[n]o data are available to show what . . . the likelihood of a paradoxical reaction would be with a 500 milligram IV dose of midazolam." *Id.* Ultimately, the district court found that "[t]he evidence falls well short of establishing that the risk of a paradoxical reaction at a 500 milligram IV dosage presents anything more than a mere possibility in any given instance that midazolam will fail to deliver its intended effect." *Id.*

After carefully examining the record on appeal, we are unable to say that any of these factual findings are

clearly erroneous. To be sure, plaintiffs' counsel, in cross-examining Dr. Evans, focused on what appear to have been certain errors in his testimony. These include Dr. Evans' misidentification of the reported toxic dose range of midazolam (i.e., the dose range at which deaths have actually occurred from midazolam in a clinical setting), his assertion that Material Safety Data Sheets are mandated by the Federal Drug Administration rather than the Occupational Safety and Health Administration, and his testimony that midazolam inhibits gamma aminobutyric acid (GABA). We are not persuaded, however, that any of this seriously undercuts the key portions of Dr. Evans' testimony that were relied on by the district court. As Dr. Evans noted both in his report and in court, the 500 milligram dose of midazolam called for in defendants' revised lethal injection protocol is at least 100 times the normal therapeutic IV dose and, if properly administered, will render a person unconscious and insensate during the remainder of the lethal injection procedure.

c. The district court's conclusions regarding Count 7

Plaintiffs contend the district court erred in analyzing Count 7 because it "applied its interpretation of the risk-analysis test in *Baze*" instead of "applying the 'evolving standards of decency' analysis." Aplt. Br. at 57. We have already considered and rejected a similar, if not identical, argument above. In any event, we reject plaintiffs' assertion that Count 7 is not subject to the principles or mode of analysis outlined in *Baze*.

d. Summary

We ultimately conclude, having rejected plaintiffs' various challenges to the district court's analysis of Counts 2 and 7, that the district court correctly determined that plaintiffs failed to establish a significant possibility of success on the merits of Counts 2 or 7.

B. The remaining three requirements for preliminary injunction

As part of their appeal, plaintiffs also argue that "[t]he district court erred when it concluded [they] could not demonstrate the other three requirements for a preliminary injunction." Aplt. Br. at 62. Having concluded, however, that plaintiffs failed to establish a significant possibility of success on the merits of Counts 2 or 7, we find it unnecessary to address the remaining requirements for a preliminary injunction.

C. Emergency motion for stay of execution

As we have noted, the standards for granting a motion for a stay pending appeal, or more precisely in this context a stay of the plaintiffs' executions, are identical to those for granting a preliminary injunction. Having concluded that plaintiffs failed to establish a significant possibility of success on the merits of Counts 2 or 7, we therefore deny their emergency motion for stay of execution pending appeal.

IV

The district court's order denying a preliminary injunction is AFFIRMED.[10] Plaintiffs' emergency motion for a stay of execution pending appeal is DENIED.

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[10] In an abundance of caution, this opinion was circulated to all active judges of this court prior to publication. No judge requested a poll on the questions presented by plaintiffs. Thus, no *en banc* consideration is warranted or available.

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(ORDER LIST: 574 U.S.)

14-7955
(14A796)

GLOSSIP, RICHARD E., ET AL.

v.

GROSS, KEVIN J., ET AL.

WEDNESDAY, JANUARY 28, 2015

ORDER IN PENDING CASE

Respondents' application for stays of execution of sentences of death presented to Justice Sotomayor and by her referred to the Court is granted and it is hereby ordered that petitioners' executions using midazolam are stayed pending final disposition of this case.

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF OKLAHOMA

Case No. CIV-14-655-F

CHARLES F. WARNER, ET AL.,

Plaintiffs,

vs.

KEVIN J. GROSS, ET AL.,

Defendants.

TRANSCRIPT OF PRELIMINARY INJUNCTION
HEARING BEFORE THE HONORABLE
STEPHEN P. FRIOT UNITED STATES
DISTRICT JUDGE
DECEMBER 17, 18 AND 19, 2014
9:00 A.M.

* * * *

[283] THE COURT: We'll have the plaintiffs' next witness.

MS. GHEZZI: Your Honor, we decided to change up the witnesses a little bit. The two witnesses that we have that will be brief are ODOC witnesses and they're out in the hall, so we'll go ahead and call them first.

THE COURT: Very well.

MS. GHEZZI: Mike Oakley.

MICHAEL OAKLEY,

(WITNESS SWORN.)

DIRECT EXAMINATION

BY MS. GHEZZI:

Q. Would you state and spell your name, please.

A. My name is Mike—Michael Oakley. M-I-C-H-A-E-L, Oakley, O-A-K-L-E-Y.

Q. And, Mr. Oakley, what was your employment at the time of—oh, in the time period of March 2014?

A. In March of 2014, I was employed with the Department of Corrections.

Q. And what was your position there?

[284] A. I was the general counsel.

Q. And had you announced retirement during that period?

A. Yes, I had announced retirement, I believe, in February.

Q. And when was your retirement date?

A. My last day of work was the 23rd of April.

Q. So you were not on board at ODOC at the time of the scheduled executions for Clayton Lockett and Charles Warner?

A. No.

Q. Now, what involvement, if any, did you have in the—what we'll call "secrecy litigation" involving Mr. Warner and Lockett early in the case?

A. And when you say "secrecy litigation," please explain—

Q. Okay. I'm sorry. The state litigation that was—

A. In state court?

Q. State court litigation.

A. I was the contact person for that, but the Attorney General's Office was litigating that.

Q. And as the contact person, what, if any, involvement did you have in keeping track of what was going on in that litigation to inform the director?

A. Well, I get the pleadings and certainly have conversations with the—with counsel from time to time when there are developments.

Q. Now, prior to your testimony today, did you, in fact, look back at some of the documents that related to that secrecy [285] litigation?

A. I did.

Q. And what was your purpose in looking at those documents?

A. I was trying to familiarize myself with the dates. It has been quite some time and I wasn't really remembering the dates.

Q. I'd like to show you Plaintiffs' Exhibit 15 at page 863 and 864.

A. Fifteen?

Q. Yeah. And see the Bates stamp there at the bottom, 863?

A. Yes.

Q. And that full paragraph at the end there, beginning with "ODOC."

A. Yes.

Q. And "ODOC" refers to what?

A. The Oklahoma Department of Corrections.

Q. And you see that they have—is that a pleading that was filed regarding the stay?

A. I believe—I have to look at the very beginning of it, but I believe this was a pleading that was filed by the state, yes. It appears to be, yes.

Q. And it's where they were notifying the Court of Criminal Appeals about the status of drugs related to the Lockett and Warner executions?

A. Yes.

Q. Were you aware of difficulties by the department in [286] obtaining the drugs that were—the drugs that—under the old protocol for the March executions?

A. Yes. Pentobarbital, yes.

Q. And this says, "By Friday, March 14th, the commitment fell through and as of Monday, March 17th"—and then if you'll go to the next page—or I'm sorry, go down further—"that ODOC remains without drugs needed to carry out the lawful sentences of death for Lockett and Warner."

A. Yes.

Q. And was that your understanding on March 17th that that was—

A. Yes. I don't recall it myself, but—the date myself. I remember it existing. If the pleading says that, I guess that's when it was.

Q. Now, what involvement do you have in the development or the writing or drafting of new protocols?

A. Well, the protocol itself is—at that time, was a field memorandum kept at Oklahoma State

Penitentiary. The Attorney General's Office—the litigation that surrounded the protocol caused us to consult the Attorney General's Office quite often. So we would consult with them and I would ask for a Word document, because it was kept in PDF form, and whenever it was going to be changed, I would have it sent to me, we would draft the—I would draft the changes and submit it to the Attorney General's Office and see what their thoughts were.

[287] Q. And when you determine in March or the ODOC determines in March that there's difficulty obtaining these drugs, was a decision made to change the drug portion of the protocol?

A. Yes.

Q. Who made that decision?

A. Well, there were a number of people involved in that decision. We consulted with the Attorney General's Office. The director was involved in that decision, obviously. I was involved in that decision. We knew that there were other drugs that had been used in other states successfully. And so we—the reason we decided on midazolam was because it had been used effectively and we knew that we had testimony from others—from sources that—I'm having—I'm taking it slowly because I don't want to cross the line into attorney/client privilege. But I will say generally that we knew midazolam had the same properties as pentobarbital as far as sedation goes.

Q. And that determination of the properties of midazolam, did that come from attorneys general or other DOC personnel in other states?

MR. HADDEN: Again, Your Honor, I'm going to object on the basis of attorney/client privilege. The

substance of communications and who provided what communications and (inaudible)—

COURTROOM DEPUTY: Speak into the microphone, please.

MR. HADDEN: General objection on the substance of [288] communications between counsel, not necessarily on whether different counsel were consulted or not.

THE COURT: The question goes only to the source of information known to the witness. That's permissible. That objection will be overruled. Again, obviously, Ms. Ghezzi, it's necessary to craft your questions very carefully. And I trust that you will do so. But that objection will be overruled.

THE WITNESS: Would you repeat the question, please?

THE COURT: The question is—hold on just a second. The question is whether your information about the properties of midazolam came from attorneys general or other DOC personnel in other states.

THE WITNESS: Came from both actually, yes.

Q. (BY MS. GHEZZI) And did you do any specific research yourself?

A. I did.

Q. And where did you do that research?

A. I started with the Internet. Most times I don't go to the library these days, I go to the Internet. And so there are—were several what I consider to be reliable sources on the properties of pharmaceuticals and I compared several different sites and got the same results about the properties for midazolam for

sedation purposes. The first drug, obviously, was for sedation purposes only, so that's what I was looking [289] for, those kinds of properties.

Q. Now, these sites that you went to, do you know anything about whether there has been any criticism in the pharmaceutical area or arena over the quality of the information provided in those specific—

A. I'm not aware of any.

Q. Now, there was some—was there any pressure to get a protocol with a new drug in place before the executions that ultimately got set April 22nd and 29th and then combined on the 29th?

A. Yes. The litigation was such that I understand that—I wasn't there at any of the meetings, but I understand that our attorneys, the Attorney General's Office, had offered the final protocol at a particular time. I wasn't aware of exactly when. But, yes, there was pressure to get it done by that particular time because of the litigation. As in this litigation, there's always a deadline. And, yes, it was—there was pressure.

Q. And was this—

THE COURT: Excuse me. Are you talking about time pressure or pressure exerted by people walking into your office and telling you that you had to do something?

THE WITNESS: Sir, both. There was pressure from—yes, there was pressure from those people who were above us to get it done and get it in place.

Q. (BY MS. GHEZZI) And when you say those above us, that's [290] really referring to political pressure?

A. There was—there was—there were calls from the Governor's Office. There were meetings at the Attorney General's Office that I was not—I didn't attend them. But after those meetings, we would get word from the Attorney General's Office that we better hurry up and do something. And especially with this one date on a Friday of spring break, when you were supposed to be furnished the final protocol. And, you know, there's—in this litigation were supposed to be furnished the final protocol, yes, there was pressure.

Q. And so, actually, the final protocol was signed by the warden on March 21st, do you know?

A. I don't know.

Q. Let me show you Plaintiffs' Exhibit 3. And just the cover page of that. I think—don't those field memorandums have the effective date at the top of them, Mr. Oakley?

A. Yes, they used to. It says, "effective date 3/21/14." That's the effective date. I don't know when she would have signed it. I know that she was out of the office on the date that I mentioned on that Friday. So she probably—she might have signed it on the same day, but that's the effective day.

Q. Now, so essentially, between the time of Friday, March 14th, when it's clear that these drugs that you had used in the past are difficult to find and then by March 21st the midazolam protocol is in effect?

[291] A. Yes.

Q. And you may not remember this, but do you remember specifically what pharmaceutical or pharmacy sites that you went to on the Internet for your own research?

A. I don't remember. There are a number of them that I checked. And I didn't see any negative effects for our purposes. You know, and I certainly didn't see anything by any experts that would indicate that it wouldn't do exactly what we needed it to be done.

Q. Did you hear anything or did you review anything on the Internet that dealt with the issue of midazolam having what's called a "ceiling effect"?

A. No.

Q. Did you review anything on the Internet that advised regarding midazolam's properties that in some populations, particularly vulnerable populations, cause a paradoxical effect?

A. I'm not aware of that.

Q. And did you—do you have any pharmaceutical background or medical background?

A. No, I don't.

Q. Who picked the dosage of midazolam?

A. We consulted with the protocol that was used in Florida and that dosage was—and it had been used successfully and that dosage was utilized.

* * * *

[297] Q. You were also asked some questions about specific research. The answers that you're giving, was that just related to research you personally did?

A. That was just related to my research only, yes.

Q. Did you have access, though, to other forms of research?

A. Well, yes.

Q. As an example, would you also have access to transcripts of experts from across the country in various death penalty litigation?

A. Yes.

Q. Would that include experts of death row inmates?

A. Yes.

Q. Do you specifically recall reading or referring to any of those at any time?

A. Yes. We—we looked at the cases—cases in other states. And I believe Florida was one of those states.

Q. Based upon the overall research that was conducted that was received from various sources, did you feel confident that the drugs and the amounts of the drugs in the protocols were constitutionally adequate?

A. Yes. They would not have been put in otherwise.

Q. And do you also have an expectation if you develop a protocol and it is insufficient that it will at least be brought to your attention by the attorneys for the inmates who may be subject to it?

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF OKLAHOMA

Case No. CIV-14-655-F

CHARLES F. WARNER, ET AL.,

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TRANSCRIPT OF PRELIMINARY INJUNCTION HEARING BEFORE THE HONORABLE STEPHEN P. FRIOT UNITED STATES DISTRICT JUDGE
DECEMBER 17, 18 AND 19, 2014
9:00 A.M.

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[89] DIRECT EXAMINATION

BY MS. GHEZZI:

Q. Would you state and spell your name.

A. My name is Anita Trammell. A-N-I-T-A, T-R-A-M-M-E-L-L.

Q. And, Ms. Trammell, what's your occupation or profession?

A. I'm the warden at OSP, Oklahoma State Penitentiary.

Q. And would you just describe briefly for the Judge how the penitentiary is set up as it relates to H-Unit, where the execution chamber is, and where offenders with death sentences are held?

A. H-Unit has four housing units. The death row, as we refer to it, is on southwest. The execution chamber is upstairs. And you can—there's a door that goes to southwest.

Q. And the H-Unit building itself is separate from the administration offices and the large older building that is sometimes referred to as "the walls"; is that correct?

A. Yes.

Q. How long have you been the warden at OSP?

A. Since September 2012.

Q. And as the warden, have you had responsibilities for executions during that time?

A. Yes.

Q. And how many executions?

A. I have witnessed 11. I have observed two.

Q. And were the first two that—the ones that you observed, [90] were those the first two that you—

A. Yes.

Q. —observed? And who in April—in April of this year, who was responsible for the execution protocol that was used for Mr. Lockett?

A. I was.

Q. And did you draft and prepare that protocol?

A. No.

Q. Do you know who did?

A. No.

Q. And did you sign it?

A. Yes.

Q. And who provided it to you to sign?

A. Mike Oakley, who was our general counsel at the time.

Q. And by "general counsel," he was general counsel of the Oklahoma Department of Corrections at the time; is that correct?

A. Yes.

Q. And was that done initially in March, March 21, 2014, if you recall?

A. I don't recall the exact date.

Q. Now, in the executions that you had observed prior to Mr. Lockett's execution, do you know what drug was used for the purpose of rendering the offender unconscious and insensate to pain?

[91] A. Yes.

Q. And what was that drug?

A. Pentobarbital.

Q. And did you also know what changes, if any, were being made to the protocol regarding the drug pentobarbital?

A. Yes. I did know, yes.

Q. And from whom did you know that information?

A. I would say it was Mike Oakley, as well as reading it in the policy.

Q. And did you know anything about the drug midazolam?

A. No, I didn't.

Q. And did you do any independent research yourself about the drug midazolam?

A. No.

Q. Did you rely exclusively on what other people were telling you about that drug?

A. Yes.

Q. And who did you receive information about the drug midazolam from besides Mr. Oakley?

A. The director and I had a conversation about midazolam.

Q. And would that conversation with the director have occurred on the same day of Clayton Lockett's execution?

A. Yes.

Q. And in that conversation, was it your understanding that the director had had some personal experience with the drug

IN THE UNITED STATES DISTRICT COURT
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DECEMBER 17, 18 AND 19, 2014
9:00 A.M.

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* * * *

[459] BY MR. BAICH:

Q. Good afternoon, Mr. Patton.

A. Good afternoon, sir.

Q. Could you please state your name and spell it for the record.

A. Robert Patton. R-O-B-E-R-T, P-A-T-T-O-N.

Q. And can you tell me your current position?

A. I'm currently the director of the Oklahoma Department of Corrections.

Q. And prior to your appointment as the director of the Oklahoma Department of Corrections, what position did you hold?

A. Immediately prior to my appointment?

Q. Yes.

A. I was the division director of operations for the Arizona Department of Corrections.

Q. And as the division director in Arizona, did you have any responsibilities related to executions?

A. I did.

Q. And can you tell me what they were?

A. I was responsible for the overall operation of executions.

Q. And what does that mean?

A. If you have the Arizona protocol, I'll be happy to read. There was probably 75, 80 things I had to do.

Q. Based on your recollection, what were your responsibilities?

* * * *

[509] discuss it with Scott Crow, yes.

Q. And anyone else at the DOC?

A. The specifics of the Florida protocol, outside of counsel and Scott Crow, I do not believe so, sir.

Q. Okay. You have heard information presented during this hearing—testimony presented during this hearing that midazolam has no analgesic properties;

did you hear that testimony from Dr. Sasich and Lubarsky?

A. I did hear their testimony, sir.

Q. Knowing that information, are you satisfied that midazolam is a reliable drug that would produce a level of unconsciousness that would likely prevent the plaintiffs from experiencing the pain and suffering from the administration of the drugs?

A. I am not a medical expert, sir, but according to the medical expert that will testify this afternoon, I am confident.

Q. Did you consult with Dr. Evans?

A. The Attorney General's Office did, sir.

Q. But you had no direct conversations with Dr. Evans?

A. I have not had direct conversations with Dr. Evans.

Q. So the Attorney General's Office is between you and the expert?

A. That is a fair statement.

Q. So the information that you get is not from a medical [510] expert, but from your attorneys?

MR. JOSEPH: Objection, Your Honor.

THE COURT: Overruled.

THE WITNESS: I have not had direct conversations with Dr. Evans, sir.

Q. (BY MR. BAICH) Okay. You have heard testimony presented during this hearing that midazolam has a ceiling effect and, therefore, large

doses of the drug does not mean it's more effective. Did you hear that testimony?

A. I have heard that testimony.

Q. Okay. Knowing that information, are you satisfied that midazolam is a reliable drug that would produce a level of unconsciousness that would likely prevent the plaintiffs from experiencing the pain and suffering from the administration of the drug?

A. And I will continue to answer that question, as briefed by the Attorney General's Office: Yes.

Q. And one more question for the record. Please, bear with me.

Midazolam can result in paradoxical reactions, particularly in certain populations, including those with a history of aggressive or impulsive behavior, alcohol abuse or psychiatric disorders.

Knowing that information, are you satisfied that midazolam is a reliable drug that would produce a level of [511] unconsciousness that would likely prevent plaintiffs from experiencing the pain and suffering from the administration of the drug?

A. And I rely on my previous answer to that question, sir.

Q. Are you familiar with the Joe Wood execution that took place in Arizona in July of 2014?

A. Through the same media reports everybody else is familiar with it, sir.

Q. But you had no conversations with your former director or anyone else at the Arizona Department of Corrections about that execution?

A. Not specifics to that execution. Of course, I called him the next day after the media reports to see if he was doing okay.

Q. And by "him" you're referring—

THE COURT: To do what?

THE WITNESS: To see if he was doing okay. I'm sorry, Your Honor.

Q. (BY MR. BAICH) And by "him," you mean Director Ryan?

A. Correct.

Q. Are you familiar that midazolam was used during the execution of Joseph Wood?

A. I'm aware that midazolam and hydromorphone were the two drugs used in Joseph Wood's execution.

Q. And are you aware that it took almost two hours for [512] Mr. Wood to—to die?

A. Through the media reports, yes, sir, I'm aware of that.

Q. But not from Director Ryan or anyone else at the Arizona Department of Corrections?

A. I'm not going to say Director Ryan didn't say it was two hours, but I'm more familiar with the case through the media reports, sir.

Q. What is your basis for picking 500 milligrams of midazolam and hydromorphone as an option under your protocol here in Oklahoma, knowing that Mr. Wood lingered almost two hours before dying?

A. Chart D requires 500 milligrams, so I stuck with the Chart D when developing. I believe now you're talking about Chart C, sir?

Q. Yes, I am.

A. 500 milligrams is used in Chart D, so I stuck with the 500 milligrams and matched that with hydromorphone and sent for review to our medical expert.

Q. And are you aware that Mr. Wood was administered 750 milligrams of midazolam?

A. I am, sir.

Q. I'd now like to take a few minutes to go through the protocol with you, Exhibit 68. And we'll start at page 6, under B, the H-Unit.

Can you tell me if you have selected the H-Unit Section [513] Chief?

A. I have.

Q. Okay. Is that person—does that person have any medical training?

A. Can you please define that?

Q. Well, under the—under your protocol, the H-Unit Section Chief is to monitor the prisoner—or monitor the line into the prisoner and requires that the person doing the monitoring have medical training.

So I'm asking if the H-Unit Section Chief has medical training.

A. The H-Unit Section Chief has informal training as to what to look for for a line that may or may not fail. And then 24 hour prior, when the IV Team comes in, he'll receive training from them, as well as to what to look for in the IV line, sir.

Q. Okay. Now I'd like to move on to page 7, under C, the IV Team.

And can you tell me if an execution in Oklahoma can be carried out without a physician being present?

A. It can.

Q. And can you tell me if you have selected the IV Team for the four scheduled executions?

A. I have.

Q. Can you tell me if a member—if a physician is a member of that team?

[514] A. A physician has been selected as the IV Team leader.

Q. Can you tell me if a physician assistant has been selected as a member of the IV Team?

A. I can tell you that the second IV Team person, that the IV Team member is a paramedic.

Q. Can you tell me if the physician that—strike that.

I'd like to have you look at C(1)(f), military corpsman or other certified or licensed personnel, including those trained in the United States military.

I know what a "military corpsman" is, but I'm not sure what a "certified or licensed personnel"—I'm not sure of the definition of that. Can you explain them to me?

A. The military has several different job descriptors and we didn't list them all in there, as far as their medically trained staff. So were they licensed medically by the United States military, is that what—that's what (f) means.

Q. So—just so I'm clear, under (f), the person would be in the military?

A. That is correct.

Q. And there would be some licensing that the military—

A. Certification by the military. I don't know if "licensing" is the best word to use, but certified by military.

THE COURT: Let me interrupt for going back about a minute and a half just for a follow-up question.

[515] Director Patton, you said that for the four upcoming executions a physician has been selected as the IV Team leader. If all goes as planned, during the administration of the drugs, where will the physician be situated?

THE WITNESS: Your Honor, the physician is inside what is now called the "operations room." He'll be—he or she shall be standing by the two monitors that are on the wall and the ECG machine.

THE COURT: And those are the monitors that pick up the—or get a feed from the two cameras in the actual execution room?

THE WITNESS: That is correct, Your Honor.

THE COURT: And on that subject, I do—I would like to clarify one thing.

Yesterday, one witness said that those two cameras can tilt and swing, I think. Another witness said that they can zoom. Can they tilt and swing and zoom?

THE WITNESS: They are pan, which goes this way (demonstrating), Your Honor, tilt, that goes this way (demonstrating), and then zoom into the site. So there's three controls to the camera.

THE COURT: And do you anticipate that the physician would have—or at least would be expected to view the IV access sites in that way?

THE WITNESS: The intention of the dual camera, sir, [516] is one of the cameras zooms in into the IV site that you are using at the time. Let's say it's the primary, it's the right arm. We will zoom that camera into the IV site so the physician can observe the drugs being administered into the primary site.

The other one, it's depending on the physician's preference. It can be taken so he can observe the inmate's reactions to his face or he can take it, if he prefers, and zoom it on the secondary site.

THE COURT: And do any of those chemicals have any color to them?

THE WITNESS: I do not believe so, sir. I believe they're all clear.

THE COURT: Okay. Forgive the interruption. Mr. Baich, you may proceed.

MR. BAICH: Sure.

Q. (BY MR. BAICH) Under Number 3, C(3), the team leader and members are selected by you and a review of the qualifications, training, experience, licensing takes place. Can you tell me what process is used to do that?

A. Yes, sir.

I personally interviewed the team leader. I'm scheduled to interview the team member next week. I talked to the team leader regarding his or her qualifications, their willingness to participate, and was satisfied that they were well-qualified

* * * *

[550] A. I do, sir.

Q. Okay.

THE COURT: Before you go on, let me ask one more question.

MR. JOSEPH: Sure, Your Honor.

THE COURT: If either pentobarbital or sodium thiopental were, in fact, available to the DOC for this purpose, what impact, if any, would that have on your selection of which chart to use? Would that change your–

THE WITNESS: Your Honor, if either of those drugs were available, I would have selected them first.

THE COURT: Very well. Next question.

MR. JOSEPH: Thank you, Your Honor.

Q. (BY MR. JOSEPH) You were questioned on direct about selection of team heads, team members, for the execution protocol. Do you remember that line of questioning?

A. I do, sir.

Q. Okay. And what is your understanding about your role in the protocol with regards to selection of team members and team heads?

A. It varies, depending on which team you're talking about, but, overall, every team member I review their selection. That—teams are broken down, you know, so specifically. The Traffic Control Team, I don't personally go out and pick those

* * * *

[554] Q. Okay. Are you aware that the patent for sodium pentothal has expired?

A. I have no knowledge of that, sir.

Q. What, if any, efforts have you made to inquire whether Oklahoma laboratories could create sodium thiopental?

A. We talked to numerous pharmacies in Oklahoma to try to attempt to get pentobarbital and thiopental and was unable to do so, as I testified earlier, sir.

Q. So you were attempting to get manufactured chemicals?

A. We also talked to some compound pharmacists who could not provide it.

Q. As to both—okay.

You mentioned the training of IV Team members 24 hours before the scheduled execution?

A. Within 24 hours, yes, sir.

Q. Within 24 hours.

Is this training protocol in written form?

A. I'm not sure what your question is.

Q. Well, the scenario that we talked about, simulating what went wrong in Lockett, is that in written form?

A. No. It will be after the training, as the recorder does for all the training notes.

MR. BAICH: Thank you. No further questions.

THE COURT: Any recross?

MR. JOSEPH: Nothing further, Your Honor.

* * * *

[605] You may step down.

THE WITNESS: Thank you, sir.

MR. HADDEN: Defendants call Dr. Joni McClain.

THE COURT: Well, let me make sure. This completes the plaintiffs' presentation of testimony?

MS. GHEZZI: Your Honor, we'd like to recall Director Patton for one question.

THE COURT: He's fair game. Come on up, Director Patton.

MR. JOSEPH: Your Honor, I believe Mr. Baich was doing—I believe Mr. Baich had begun the questioning of this witness.

THE COURT: Well, he may not have the one question in his head. And so with the understanding that it's one question, which is—it hardly ever is one question, but with the understanding that it's something on that order, I'm going to permit Ms. Ghezzi to proceed.

ROBERT PATTON,

(WITNESS PREVIOUSLY SWORN.)

DIRECT EXAMINATION

BY MS. GHEZZI:

Q. Director Patton, when you were testifying for Mr. Baich regarding whether or not the patent for sodium thiopental had expired, the question I'm asking you is: Have you done—made any efforts to determine whether, through OU's medical schools [606] or teaching hospitals or laboratories of the state,

that there are any efforts to determine whether or not those laboratories can produce sodium thiopental?

A. And as I stated, and my answer remains the same, we contacted several pharmacies and compounding pharmacies and were unable to obtain it. I'm not saying that they can't produce it. I'm telling you we cannot obtain it.

Q. Okay. I'm not asking you whether you can obtain it or anything about pharmacies. I'm talking about inquiring of laboratories about making it, not pharmacies.

A. And my answer remains the same: We could find no one that was willing to produce it for us.

Q. Have you made any efforts to contact the University Hospital—

A. I believe I've already answered this question. We've attempted enough times.

THE COURT: Let her finish the question first. Go ahead.

Q. (BY MS. GHEZZI) Have you made any efforts to contact a teaching hospital, a medical hospital, any state laboratory, separate from any kind of pharmacy, over producing the drug sodium thiopental which no longer has a patent?

A. I can answer the question that I have not—I have not personally. I cannot answer a question whether anyone else has. I don't know.

EXPERT REPORT OF DAVID A. LUBARSKY, M.D., MBA

RE: *Charles F. Warner, et. al., v. Gross, et. al.*, No. CIV-14-665F

November 26, 2014

Expert Report of David A. Lubarsky, M.D., MBA
Dated November 26, 2014

Background

1. I am a licensed physician, and I currently serve as the Emanuel M. Papper Professor of Anesthesiology and the Chair of the Department of Anesthesiology at the University of Miami Miller School of Medicine. I have served as Chair for the past thirteen years. I am also the Chief Medical Officer of the University of Miami Health System.

2. In addition to my current position, my experience as an anesthesiologist includes service as the Vice-Chair of the Department of Anesthesiology at Duke University Medical Center from July 1988 to November of 2001. I am licensed to practice medicine in Florida. I am Board Certified in anesthesiology by the American Board of Anesthesiology, and in pain management by the American Academy of Pain Management. I have conducted research and published peer-reviewed articles on the suitability of various drugs as anesthetics and how to adequately maintain anesthetic depth in a clinical setting. I have been a recurring author of the chapter on intravenous induction agents in our specialty's primary authoritative textbook (Miller's Anesthesia).

3. I have conducted research and published almost 100 peer-reviewed articles and many other non-peer-reviewed treatises. Some of these publications deal with the suitability of various drugs as anesthetics and how to adequately maintain anesthetic depth in a clinical setting. I have also published peer-reviewed articles on lethal injection, including the only scientific paper that evaluated available medical data, and have served as an expert witness in lethal-injection litigation in several states, including in Alabama in the case of *Arthur v. Thomas,* 674 F3d 1257 (11th Cir. 2012). I have also served as an expert witness in cases involving lethal injection in Ohio, Tennessee, and Florida. A current copy of my complete CV is attached as Exhibit 1 to this Report. In the previous four years, I have testified as an expert at trial or by deposition in the following cases: *Juan Carlos Chavez, Plaintiff v. John Palmer, etc. et al., Defendants,* Case No. 3:14-cv-110-J-39JBT, in the United States District Court, Middle District of Florida; *State of Florida v. Howell,* Case No. 1992-CF-22; in the Circuit Court for Jefferson County, Florida; *Liptak, Carly v. Rudolph / Dickinson / Anesthesia Associates of Pinellas County, P.A.,* Case No. 12-5386CI-21, in the Circuit Court for Pinellas County, Florida; and in Preliminary Injunction hearing for Ronald Ray Post in In re: *Ohio Execution Protocol Litigation,* Case No. 2:11-cv-1016 (S.D. Ohio), in the United States District Court, Northern Ohio District.

4. I have been retained by counsel for Plaintiffs in *Warner v. Gross,* No. 5:14-cv-00665-F. I was asked to review documents and provide my opinion regarding the use of midazolam generally and

specifically in Oklahoma's lethal-injection execution protocol.

5. I am being compensated for my work in this case at $600 per hour. To date, I have billed the Plaintiffs $2700.

6. I have reviewed the following documents:

Record	Bates Numbers
Autopsy Report of Clayton Lockett	DPS 1-12 (OAG/JDH/Warner 0088-0099)
IFS-14-07742 OK docs_ RedactedCOMP (includes lab analyses)	DPS 16-33 (OAG/JDH/Warner 0121-0138)
Tox Rpt 14-00742 (toxicology report)	DPS 63-65 (OAG/JDH/Warner 0189-0191)
Tox wksht 14-07742 (toxicology worksheet)	DPS 66-68 (OAG/JDH/Warner 0103-0105)
ifs-14-07742 SWIFS ME docsCOMP (includes toxicology report)	DPS 84-95 (OAG/JDH/Warner 0139-0150)
14-0189SI Summary (DPS Executive Summary)	DPS 105-136 (OAG/JDH/Warner 0056-0087)
2014.06.12 UFS Cohen Lockett Preliminary Autopsy Findings (Dr. Joseph Cohen's report)	FPD 1-2
Attachment D (to 2014.09.30.14 Revised Protocol) - Preparation and Administration of Chemicals	DOC 163-173 (OAG/JDH/Warner 0035-0045)

Opinion

1. In a clinical setting, the purpose of anesthesia is to render a patient insensate to the effects of a proposed intervention. When a general anesthetic is utilized, induction and maintenance of unconsciousness and lack of responsiveness to noxious stimuli is the goal and expected outcome.

2. Midazolam is known under the trade name Versed. It is the shortest acting benzodiazepine on the market. Benzodiazepines are a class of drugs primarily used for treating anxiety. They include drugs such as Valium, Ativan, and Xanax. In clinical use, midazolam is typically administered prior to the induction of anesthesia in surgical settings to treat and sedate a patient.

3. Midazolam is not intended for use as a total anesthetic. Although midazolam can be used to *induce anesthesia,* it has no analgesic properties, and without the addition of pain-relieving drugs, does not render one insensate to noxious stimuli and is not suitable as a form of anesthesia as a single drug.

4. Midazolam is not FDA-approved as the *sole drug* to produce and maintain anesthesia in minor surgical procedures. It is never used as the sole anesthetic in a procedure that involves any noxious stimuli as it has no appreciable analgesic effect. J.G. Reves, Robert J. Fragen, H. Ronald Vinik, David J. Greenblatt, Midazolam, Pharmacology and Uses, 62 Anesthesiology, 310-324 (1985).

5. Midazolam has a ceiling effect on anesthetic depth. This means that further administration of drug after a certain effect is reached has no further

effect. *See* Exhibits 2 and 3, attached to this Report.

6. Midazolam differs significantly and materially from barbiturates like pentobarbital, which are approved as sole anesthetics. Pentobarbital is a barbiturate, and unlike midazolam, it does not have a ceiling effect. Pentobarbital produces two different effects on the brain. It acts on the GABA receptor to promote GABA binding that will induce unconsciousness in the absence of noxious stimuli, and it also produces sedation directly in large doses, acting as a GABA substitute.

7. Midazolam binds to a receptor adjacent to the GABA receptor and increases effective binding of GABA to its receptor to induce unconsciousness, but unlike the barbiturates, it does not have any direct effect (the second mechanism of barbiturates) to produce deep anesthetic states. Also, once that receptor is saturated with midazolam, administration of more of the drug does not do anything further to increase the level of unconsciousness. There is a maximum effect short of EEG (brain electrical activity) silence (Physiology and Pharmacology in Anesthetic Practice, Stoelting and Hillier, 4th edition), which is why midazolam is not used to induce coma whereas barbiturates are.

8. Midazolam can also cause paradoxical reactions in vulnerable populations, such as the elderly, people with a history of aggression, impulsivity, alcohol abuse or other psychiatric disorders. A paradoxical reaction is when the drug does not work as intended. These paradoxical reactions manifest in many ways such as hyperactivity and restlessness, but are not attended by the expected sedative

effects, and are addressed by reversal of midazolam, not further administration. Midazolam can be reversed by administering the drug romazicon (trade name Flumazenil). *See* Exhibit 4.

9. Studies show that when benzodiazepines like midazolam are given in high doses to the elderly (over 65), to people with a history of aggression or impulsivity, a history of alcohol abuse, and other psychiatric disorders, there is a significant risk of a paradoxical reaction. In the prison setting—which population includes those who constitute the vulnerable populations addressed here—midazolam might not cause a prisoner to be sedated long enough for the execution to be over, and instead might induce anxiety, discoordinated movement, hyperactivity and/or aggression in lieu of sedation.

10. Midazolam has a relatively rapid absorption rate whether injected through the vein or intramuscularly. Under the circumstances surrounding Mr. Lockett's death, representations made by the State of Oklahoma included the facts that 100 mg of midazolam were administered to Mr. Lockett and that Mr. Lockett was determined to be conscious by a physician five minutes after the administration of midazolam but was determined to be unconscious seven minutes after the administration of midazolam. This is consistent with known fact that intramuscular tissue absorption occurs just minutes after the expected effect with IV administration. The reports further show that midazolam entered Mr. Lockett's circulatory system.

11. Oklahoma has a three-drug lethal-injection protocol where midazolam is the first drug administered. The second drug in Oklahoma's lethal-injection protocol is vecuronium bromide, a neuromuscular blocking agent. The third drug in Oklahoma's lethal-injection protocol is potassium chloride. This drug formula was administered to Clayton Lockett.

12. The vecuronium bromide will paralyze a prisoner and render him unable to convey pain or suffering. If conscious, a prisoner would experience a sensation akin to being buried alive, but would not be able to convey the feeling of pain or suffocation. The paralysis would camouflage any voluntary movement that might result from an incomplete loss of consciousness.

13. Vecuronium bromide also prevents the lay observer from discerning whether the anesthetic drug has been properly delivered. The only purpose of the administration of the vecuronium bromide is to make the execution more aesthetically pleasing to observers in that it reduces the ability of the individual being executed to move or show any pain associated with the execution process.

14. Potassium chloride is a caustic chemical and would cause excruciating pain to a prisoner upon injection if he is not placed into and maintained in a surgical plane of anesthesia for the duration of the execution. Oklahoma's protocol relies on midazolam to induce and maintain that surgical plane of anesthesia, but midazolam is not appropriate as a sole anesthetic agent and is incapable of reliably maintaining a surgical plane of anesthesia.

15. It is my opinion that midazolam is an unsuitable and inappropriate choice as the first drug in Oklahoma's three-drug lethal-injection protocol for three reasons. First, midazolam has a ceiling effect and therefore cannot guarantee that a person will be unconscious and insensate to the effects of the second and third drugs. Second, it has no analgesic properties; therefore even if it were able to produce unconsciousness if 500 milligrams were properly administered, the noxious stimuli of the second and third drugs can overcome its sedative effect. Third, midazolam has an increased risk of paradoxical reactions.

16. In addition to the risk that midazolam will not induce and maintain an adequate level of anesthesia, there is an additional risk that the execution team is ill equipped to assess whether the prisoner is insensate. When a condemned prisoner is subjected to a painful stimulus, such as air hunger following an injection of vecuronium bromide or the searing pain of potassium chloride, there is a significant risk that the prisoner will awaken. While a heavily sedated prisoner might not respond to name calling or a subtle pinch, that is a very different level of stimulus from being starved for air once paralyzed, or having a caustic chemical injected intravenously. As an analogy, a patient asleep might not awaken to the stroke of the eyelashes or a pinch to the finger, but would certainly awaken to a blowtorch applied to the skin. Without an adequate determination of the prisoner's depth of, anesthesia, administration of the vecuronium bromide and potassium chloride creates a significant risk of extraordinary pain and suffering.

17. Determining whether someone is truly insensate and unaware takes repetitive training and experience. The signs that someone is not insensate can be very subtle. In a clinical setting, you would typically see subtle fine motor movements such as a moving of the feet or hands. This is not something that a lay person will necessarily observe or notice, and one could not detect such movement if the limbs were covered. To ensure that an individual is insensate to noxious stimuli, that individual must be in a surgical plane of anesthesia. In clinical practice, a common way to test for a surgical plane of anesthesia is to apply a surgical clamp on the area where the incision will be made. The pain/pressure created by this clamp cannot be equated with a human being conducting a trapezius pinch, touching an eyelid, or shaking a person's shoulder.

18. Furthermore, for such protocols to be safely conducted, the subject must be continually monitored by a trained medical professional who is experienced in providing a surgical plane of anesthesia.

19. While there is no scientific literature addressing the use of midazolam as a manner to administer lethal injections in humans or in animal euthanasia, the recent execution of Joseph Wood in Arizona provides objective, scientific evidence of the inability of midazolam to produce a coma and to guarantee sufficient anesthetic depth to allow a condemned prisoner to withstand the noxious stimuli of the second and third drugs. According to the Arizona Department of Corrections, Joseph Wood was given a total of 750 milligrams of midazolam, which is 250 milligrams more than

that called for in Oklahoma's protocol. *(See* Arizona Department of Corrections Press Release, Aug. 1, 2014, at https://corrections.az.gov/article/independent-review-process-wood-execution-under way.) The ceiling effect of midazolam was demonstrated in this human administration of large doses of midazolam because these large doses did not cause cessation of breathing or prevent movement, both of which are present during extremely deep levels of anesthesia. It is also consistent with the very large doses required to cause death in animals.

20. The use of midazolam in executions amounts to failed human experimentation. Despite the lack of a previous history of use of these doses in humans, Departments of Corrections have hypothesized three highly unlikely ideas to support their lethal-injection protocols: (1) a surgical plane of anesthesia could be achieved and maintained with midazolam alone even though extrapolation of the ceiling effect data suggests otherwise; (2) that midazolam could produce a surgical plane of anesthesia at higher doses even though the drug has never been used to do so previously, is not approved by the FDA for such use and is not used clinically as a sole anesthetic; and (3) that more drug will produce a deeper level of sedation even though an understanding of midazolam's site of action dictates otherwise. In testing these hypotheses, the state of Arizona suffered a clinical experimental failure during the execution of Joseph Wood, despite using 750mg of midazolam. This experimental execution now offers proof that Oklahoma's 500 milligram dosage will not rapidly or reliably produce a deep level of anesthesia or coma, and further supports the existing published

data that there is a ceiling effect with midazolam and that higher dose of the drug do not equate to a deeper level of unconsciousness.

21. Based on the information that I have been provided thus far, it is my opinion to a reasonable degree of medical certainty that using midazolam, followed by vecuronium bromide and potassium chloride, creates a significant risk of serious harm to condemned prisoners. It also amounts to experimentation on human subjects and vulnerable populations.

22. These are my opinions based on the documents and information that I have been provided at this time. If additional information becomes available, I reserve the right to alter my opinion upon review of such information.

Signed this 26th day of November, 2014.

/s/ David A. Lubarsky
David A. Lubarsky, M.D., MBA

EXHIBIT 3

MATERIAL SAFETY DATA SHEET

Product Name: Midazolam Hydrochloride Injection, Solution with Preservative

1. Chemical Product And Company Information

Manufacturer Name And Address	**Hospira Inc. 275 North Field Drive Lake Forest, Illinois USA 60045**
Emergency Telephone	**CHEMTREC: North America: 800-424-9300; International 1-703-527-3887; Australia (02) 8014 4880**
Hospira, Inc., Non-Emergency	**224-212-2000**
Product Name	**Midazolam Hydrochloride Injection, Solution with Preservative**
Synonyms	**8-Chloro-6-(2-fluoropheny1)-1-methy1-4H-imidazo (1,5-a)(1,4)benzodiazepine hydrochloride**

2. Composition/Information On Ingredients

Active Ingredient Name	**Benzyl Alcohol Midazolam Hydrochloride**
Chemical Formula	$C_{18}H_{13}C1FN_3$-HC1
Preparation	**Non-hazardous ingredients include Water for Injection. Hazardous ingredients present at less than 1% include**

sodium chloride and disodium edetate; hydrochloric acid and/or sodium hydroxide are added to adjust the pH.

Component	Approximate Percent by Weight	CAS Number	RTECS Number
Benzyl Alcohol	1	100-51-6	DN3150000
Midazolam Hydrochloride	≤ 0.5	59467-96-8	NI2922250

3. Hazard Information

Carcinogen List

Substance	IARC	NTP	OSHA
Benzyl Alcohol	Not Listed	Not Listed	Not Listed
Midazolam Hydrochloride	Not Listed	Not Listed	Not Listed

Emergency Overview Midazolam Hydrochloride Injection, Solution with preservative contains midazolam hydrochloride, a short-acting benzodiazepine central nervous system depressant used to relieve anxiety and provide sedation. In the U.S., midazolam is subject to Schedule IV control under the Controlled Substances Act. In the workplace, midazolam hydrochloride should be considered a potent drug, potentially irritating to the eyes and respiratory tract, and a potential occupational reproductive hazard. Possible target organs include the central nervous system, gastrointestinal system, genitourinary system, cardiovascular system, eyes, skin, and possibly the fetus.

Occupational Exposure Potential

Information on the absorption of this product via inhalation or skin contact is not available. Published reports have indicated that some benzodiazepines have the potential to be absorbed

Acute Toxicity

Not determined for the product formulation. Information for the ingredients is as follows:

Ingredient(s)	Percent	Test Type	Route of Administration	Value	Units	Species
Midazolam Hydrochloride	100	LD50	Oral	1496	mg/kg	Rat
Midazolam	100	LD50	Intravenous	73, 357	mg/kg	Rat
Midazolam	100	LD50	Intravenous	50	mg/kg	Mouse
Midazolam	100	LD50	Intravascular	> 50	mg/kg	Rat, Mouse
Midazolam	100	LD50	Oral	215	mg/kg	Rat
Benzyl Alcohol	100	LD50	Oral	1040 - 2500	mg/kg	Rat, Mouse, Rabbit, Guinea Pig
Benzyl Alcohol	100	LD50	Dermal	2000	mg/kg	Rabbit
Benzyl Alcohol	100	LC50	Inhalation	> 500	mg/m3	Rat, Mouse

Aspiration Hazard

None anticipated from normal handling of this product.

Dermal Irritation/ Corrosion

None anticipated from normal handling of this product. However, repeated or prolonged exposure to benzyl alcohol, a minor component of this product, may produce mild skin irritation with redness and dryness.

Ocular Irritation/ Corrosion

None anticipated from normal handling of this product. Midazolam produced minimal eye irritation in a study in animals. However, exposure to benzyl alcohol has produced severe eye irritation in studies in

	animals. Inadvertent contact of this product with eyes may produce redness and discomfort.
Dermal or Respiratory Sensitization	None anticipated from normal handling of this product. In clinical use, allergic reactions including anaphylactoid reactions, hives, rash, pruritus have been reported infrequently.
Reproductive Effects	A reproduction study in male and female rats did not show any impairment of fertility at dosages up to 10 times the human intravenous dose of 0.35 mg/kg. Teratology studies conducted with midazolam maleate injectable in rabbits and rats at doses that were 5 and 10 times the human dose of 0.35 mg/kg did not show evidence of teratogenicity. Studies in rats showed no adverse effects on reproductive parameters during gestation and lactation. Dosages tested were approximately 10 times the human dose of 0.35 mg/kg.
Mutagenicity	Midazolam was not mutagenic in Salmonella typhimurium (5 bacterial strains), Chinese hamster lung cells (V79), human lymphocytes or in the micronucleus test in mice.

Carcinogenicity	Midazolam maleate was administered with diet in mice and rats for 2 years at dosages of 1, 9 and 80 mg/kg/day. In female mice in the highest dose group there was a marked increase in the incidence of hepatic tumors. In high-dose male rats there was a small but statistically significant increase in benign thyroid follicular cell tumors. Dosages of 9 mg/kg/day of midazolam maleate (25 times a human dose of 0.35 mg/kg) do not increase the incidence of tumors. The pathogenesis of induction of these tumors is not known. These tumors were found after chronic administration, whereas human use will ordinarily be of single or several doses.
Target Organ Effects	Based on clinical use, possible target organs include the central nervous system, gastrointestinal system, genitourinary system, cardiovascular system, and possibly the fetus.

EXHIBIT 4

CE2 HOURS Continuing Education

Paradoxical Reactions to Benzodiazepines
When to expect the unexpected.

By Mary A. Gutierrez,* PharmD,
Janice M. Roper, PhD, RN,
And Pockhee Hahn, RN

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Benodiazepines are among the most frequently prescribed medications in the United States; alprazolam, diazepam, diazepam, lorazepam, and temazepam are among the 200 most often prescribed.[1] Benzodiazepines are used in the treatment of anxiety, insomnia, and neuromuscular and seizure disorders; as preoperative medications; and to manage alcohol withdrawal. The goal is to induce a feeling of calm and relaxation, and typical side effects include sedation, psychomotor impairment, and anterograde amnesia. But in some people—as few as 1% or as many as 29%,[2] primarily children, the elderly, and those with poor impulse control—the opposite effects occur (see *Patients at Risk,* page 35). These patients have "paradoxical" reactions, characterized by emotional

* Mary A. Gutierrez is an associate professor of clinical pharmacy at the University of Southern California School of Pharmacy, Los Angeles. Janice M. Roper is an associate chief of nursing research, and Pockhee Hahn is a nurse case manager, Dual Diagnosis Treatment Program, at Veterans Affairs Greater Los Angeles Medical Center.

liability, agitation, and occasionally rage, instead of the expected calming effect. In about 7% of cases, the reaction is severe and necessitates the discontinuation of the benzodiazepine and, less frequently, treatment with a benzodiazepine antagonist.[2]

Benzodiazepine withdrawal is known to cause rebound symptoms, such as anxiety and insomnia, but few providers are aware that agitation and rage can result from appropriate administration of the drug itself. Consequently, paradoxical reactions to benzodiazepines are often incorrectly assessed as non-drug-related agitation, which is treated by increasing the benzodiazepine dose, leading to further disinhibition. This article presents a review of the available literature on paradoxical reactions to benzodiazepines and discusses nursing management options.

PHARMACOKINETICS

All benzodiazepines share comparable pharmacologic properties, acting as anxiolytics, sedative-hypnotics, myorelaxants, amnesics, and anticonvulsants.[10] They differ primarily in potency (the dosage needed to attain the desired effect) and pharmacokinetic profile. Benzodiazepines are generally divided, depending on their elimination rates, into three categories: short-, intermediate-, and long-acting agents. *The Pharmacokinetics of Benzodiazepines,* page 36, summarizes the pharmacokinetic profiles of the benzodiazepines available in the United States.

The benzodiazepines most frequently associated with paradoxical reactions are the triazolobenzodiazepines, a class of benzodiazepines that are highly lipid soluble and highly potent and that bind with high affinity to the receptor. Two high-potency triazolobenzodiaze-

pines, alprazolam and triazolam, have been most commonly reported to produce adverse central nervous system (CNS) reactions, including paradoxical effects. Midazolam, used mostly intravenously for preoperative or preprocedural sedation, is associated with a similarly high incidence of paradoxical reactions.

CASE REPORTS

The disinhibitory effects of benzodiazepines have never been studied systematically; they've been described in the literature primarily in short case reports. Many of these case studies provide insufficient information and are limited in their ability to control for factors such as other drugs or underlying psychological problems that contribute to disinhibitory effects, making interpretation difficult. These reports of paradoxical reactions to benzodiazepines warrant further investigation.

Temazepam and triazolam. During an 18-month period, 10 cases of agitation and episodic uncharacteristic anger were reported in patients receiving temazepam and triazolam in a sleep clinic.[12] There were no such effects associated with the use of other benzodiazepines. The researchers initially speculated that the observed effects were secondary to daily withdrawal, because these benzodiazepines hadn't been administered regularly and they have shorter half-lives. Upon discontinuation of either of the two benzodiazepines, the patients' symptoms remitted within days. Comparable symptoms, such as constant anger and easily provoked rage, reemerged in two patients when temazepam was restarted (the other patients were not rechallenged with this benzodiazepine). Note that in these cases the triazolam doses were 0.5 mg or higher, in excess of the recommended maximal dose of 0.25 mg per day.

Alprazolam. A double-blind, placebo-controlled crossover study showed a significant worsening of serious inappropriate impulsiveness in patients with borderline personality disorder taking alprazolam compared with those receiving placebo.[5] Seven (58%) of the 12 patients taking an average daily dose of alprazolam 4.7 mg had episodes of serious disinhibition, such as increased incidence of hurting themselves or others, during the six-week medication trial, compared with one (8%) of the 13 patients taking placebo. Because patients with borderline personality disorder often have poor impulse control that could be exacerbated by disinhibition, alprazolam apparently caused more severe, frequent, and unpredictable inappropriate impulsiveness in these cases.

The authors concluded that caution should be exercised when using alprazolam to treat patients who are predisposed to the disinhibitory effects of benzodiazepines, such as those with poor impulse control.

Midazolam. Rodrigo reported a midazolam-induced reaction of severe aggressive behavior in a female patient undergoing dental surgery; the aggression escalated with further increments of midazolam.[6] Flumazenil, a benzodiazepine antagonist that selectively abolishes all centrally mediated effects of benzodiazepines at the receptor level, was used to treat the paradoxical reaction, and the patient underwent the procedure without further complication. Honan reported a similar paradoxical reaction to midazolam, which was also controlled with flumazenil, in a male patient undergoing endoscopy.[7] Other researchers continue to report midazolam-induced paradoxical reactions, which have been reversed by flumazenil.[8, 9]

Thurston and associates described a 27-year-old man who became agitated, anxious, and restless after receiving midazolam 2 mg IV.[13] An additional midazolam 5 mg was administered over the following 10 minutes, with no abatement of symptoms. On the postanesthesia care unit, lorazepam was administered when the patient continued to be agitated and restless. When his status still had not improved, flumazenil 0.1 mg was administered, followed by another 0.2 mg two minutes afterward. Within two minutes of the second dose, the adverse symptoms resolved completely.

The Pharmacokinetics of Benzodiazepines

Short acting			
Midazolam† (Versed)	IV: 0.1 to 0.33 PO: 1 to 4	Yes	CNS depressant used for preoperative sedation or anxiolysis (injection and syrup).
Oxazepam (Serax)	3 to 5	No	An anxiolytic not for use IV. Onset of action is 3 to 6 hours because of high hydrophilicity. Needs to be scheduled TID or QID because of short half-life.
Triazolam† (Halcion)	1.6 to 5.4	No	A hypnotic with short duration and fast onset. Good for difficulty falling asleep.
Intermediate acting			
Alprazolam† (Xanax)	12 to 15	No	An anxiolytic approved for panic disorder, up to 10 mg/d (up to 4 mg/d for generalized anxiety disorder).
Estazolam (ProSom)	10 to 24	No	A hypnotic with a profile comparable to temazepam's.
Lorazepam (Ativan)	10 to 20	Yes	An anxiolytic, the best as benzodiazepine because its rate of absorption is most predictable.
Temazepam (Restoril)	10 to 20	No	A hypnotic with slow dissolution rate (onset of action, 1 to 3 hours); good for difficulty staying asleep.
Long acting			
Chlordiazepoxide (Librium)	Parent drug 5 to 30; active metabolite (desmethyldiazepam) 30 to 200	Yes	An anxiolytic commonly used for alcohol withdrawal, not to exceed 300 mg/d.
Clonazepam (Klonopin)	18 to 50	No	A long-acting anxiolytic and anticonvulsant without active metabolite.
Clorazepate (Tranxene)	30 to 200	No	An anxiolytic needing the acidic GI tract to convert to its active metabolite, desmethyldiazepam.
Diazepam† (Valium)	Parent drug 20 to 50; active metabolite (desmethyldiazepam) 30 to 200	Yes	An anxiolytic with potential for abuse because of high lipid solubility (that is, rapid onset).
Flurazepam (Dalmane)	47 to 100	No	A long-acting hypnotic; accumulation of metabolite may lead to daytime psychomotor impairment.
Quazepam (Doral)	Parent drug 25 to 41; active metabolite (N-desalkyl-2-oxoquazepam) 70 to 75	No	A hypnotic with a profile comparable to flurazepam's.

†Risk of paradoxical reactions may be higher when drugs are given parenterally.
‡Benzodiazepines carrying higher risks of paradoxical reactions.
Source: American Society of Health-System Pharmacists. AHFS drug information. McEvoy GK, editor. Bethesda (MD): The Society; 2001.

Diazepam. Seven children affected by infantile autism who were given diazepam 10 mg IM demonstrated paradoxical behavior (anxiogenic effects; socially inappropriate, aggressive behavior; and explosive aggression).[4] Although the children displayed some baseline aggression, the authors noted

that it increased significantly after benzodiazepine treatment.

THE NEUROPHYSIOLOGIC BASIS

Benzodiazepines normally exert their effects by enhancing those of gamma-aminobutyric acid, the primary inhibitory neurotransmitter in the limbic, thalamic, and hypothalamic areas of the CNS. Although there are many hypotheses about the etiology of benzodiazepine-induced disinhibitory effects, they've been neither fully elucidated nor proven. Several researchers, however, have put forth theories about common risk factors.

Serotonin imbalance. Paradoxical rage reactions apparently occur once the drug has caused a partial deterioration of the patient's socially acceptable behavior. This drug-related disinhibition, according to Senninger and Laxenaire, leads to an exaggerated display of the patient's underlying character pathology and aggressiveness.[14] The researchers propose that the disinhibition phenomenon is based on a serotonergic mechanism; imbalances of serotonin can lead to aggression and various psychiatric disorders.

Central cholinergic mechanism. A review by Van der Bijl and Roelofse of disinhibitory effects of benzodiazepines examined the many theories about the means by which paradoxical reactions occur. They concluded that the exact mechanism is unclear but it appears likely that a central cholinergic mechanism contributes.[3] They based this conclusion on several cases of paradoxical reactions to benzodiazepines that were reversed with the use of physostigmine, a reversible inhibitor of cholinesterase.[15, 16] (Physostigmine was used as an antidote before flumazenil received FDA approval in 1991.) The investigators

proposed that physostigmine either acts as an indirect antagonist to the benzodiazepine receptor or affects cerebral metabolism via central cholinergic mechanisms. Significant decreases in central cholinergic activity can lead to delirium and disorientation.

Genetics. Short and colleagues, who suggested that paradoxical reactions to benzodiazepines may be genetically predetermined, reported a case of monozygotic twins with marked midazolam-induced restlessness.[17] But no other reviews or studies support or verify this finding.

Idiosyncrasy. Hall and Zisook concluded that in studies of aggressive behavior in humans the effects of benzodiazepines upon such behavior are difficult to define for several reasons: the nature of the study populations, the individual nature of dose–response relationships, unclear assessment criteria, the lack of double-blind studies designed specifically to assess benzodiazepine-induced paradoxical reactions, and the underlying psychological basis for the initiation of drug therapy.[18] They deduced that because the overall incidence of significant paradoxical responses to benzodiazepines is extremely small, these reactions seem to be idiosyncratic.

A review of 45 double-blind clinical efficacy trials involving more than 5,400 patients noted no disinhibitory effects in patients treated with triazolam 0.25 mg or 0.5 mg per day or in patients treated with flurazepam 30 mg per day.[19]

Handling Unanticipated Changes in Mental Status

How to respond when you encounter paradoxical reactions

Your first clinical experience with a paradoxical reaction to benzodiazepines may be as unexpected to you as it is to your patient. The first thing you may note is unpredicted changes in mental status and behavior. Although a paradoxical reaction may be the cause, you probably won't be sure until you've ruled out possible causes such as an infection or compromised airway. After obtaining vital signs and oxygen saturation readings, perform a brief neurologic evaluation by assessing global orientation and the patient's ability to follow commands; look for any signs of neurologic insult (such as facial drooping or extremity weakness).

Safety is a high priority, particularly in a patient who becomes confused or agitated. Keep him in bed with the side rails up. Reorient as needed, and have a health care provider or family member stay with him to provide ongoing supervision. Avoid restraints; they're likely to heighten anxiety and agitation. Ask the patient's family if he has had other reactions to benzodiazepines. Also, keep in mind that the paradoxical reaction will last according to the half-lives of the particular medication and its active metabolites. For example, alprazolam has an intermediate half-life (12 to 15 hours) with no active metabolites, whereas diazepam has both a long half-life (20 to 50 hours) and three active metabolites (one of which is mentioned in *The Pharmacokinetics of Benzodiazepines*, page 36).

The possibility of a paradoxical reaction may occur to you only after you've ensured the patient's safety and ruled out all other causes. It may be only after review of the patient's medications that you connect benzodiazepine use with changes in mental status and behavior.

After the episode, be sure to discuss it with the patient and his family. A paradoxical reaction doesn't necessarily rule out future benzodiazepine use. Rather, it may necessitate a lower dose and the nurse's awareness of the medication's half-life and, if present, metabolites. Nurses should also consider the possibility of drug interactions and assess for predisposing metabolic or organic factors.—*James M. Badger, MSN, RN, CS, clinical nurse specialist, Departments of Nursing and Psychiatry, Rhode Island Hospital, Pr*

Poor impulse control. The risk of paradoxical reactions may depend on the sample population studied; a greater number of reactions may be observed in patients with underlying impulse-control disorders than in the general population. Some investigators have suggested that rage reactions to

benzodiazepine administration are predictable in those with a history of poor impulse control or aggressive and destructive behavior. In such patients, DiMascio and colleagues noted, chlordiazepoxide and diazepam may have uncovered latent hostility by altering the threshold of inhibitory control, causing a rage reaction.[20] Oxazepam is the benzodiazepine of choice in these patients, the authors said, because no rage reactions have been reported in those taking it.

Because oxazepam is not commonly used, researchers are unsure of the drug's relationship to rage reactions (that is, such reactions may be underreported). In one study, however, Kochansky and colleagues compared patients who received chlordiazepoxide 30 mg per day with those taking oxazepam 45 mg per day or placebo. The researchers observed increased hostility in the patients taking chlordiazepoxide but not in those taking either oxazepam or the placebo.[21]

Edwards and Medlicott reviewed several studies suggesting that benzodiazepine use can cause an inability to refrain from acting upon underlying aggressive impulses and that significant disinhibition may result in assaultive behavior.[22] They also suggested that an increased potential for benzodiazepines to cause patients who are depressed to attempt suicide is a result of this disinhibitory effect.

MANAGEMENT

Although paradoxical reactions are neither common nor predictable, it's important for both clinicians and patients to be aware of their potential to occur.[19, 23] A thorough medication history and careful inquiry regarding comparable adverse reactions should be

completed (see *Handling Unanticipated Changes in Mental Status,* page 37).

If a patient with a history of either poor impulse control or benzodiazepine-induced disinhibitory effects needs benzodiazepine therapy, the prescribing clinician may consider a benzodiazepine associated with fewer adverse CNS effects. Oxazepam, for example, is the most hydrophilic benzodiazepine and may induce fewer adverse CNS effects. Note, however, oxazepam's slow onset of action because of its hydrophilicity (three to six hours). For this reason, and because of its short half-life, oxazepam should be used on a scheduled, divided daily dose.

Among benzodiazepines, the triazolobenzodiazepines—such as alprazolam and triazolam—have generated the greatest number of reports of adverse CNS effects (for example, mania, anterograde amnesia, and disinhibition). Therefore, the triazolobenzodiazepines should be avoided in patients with a history of either poor impulse control or benzodiazepine-induced disinhibition. The structural and molecular similarity of the triazolo ring in these benzodiazepines may enable them to interact with receptors not usually affected by other benzodiazepines.[24] Three case reports describe acute paroxysmal excitement associated with alprazolam treatment.[24] Although estazolam is also a triazolobenzodiazepine, there haven't been any reports of it causing paradoxical reactions. This may be because of the infrequent use of this hypnotic, as well as its lower lipid solubility. The frequent reports of midazolam-induced disinhibition may be a result of its high potency, higher lipid solubility. The frequent reports of midazolam-induced dishibition may be a result of its high potency, higer lipid solubility, and the route of administration (it's usually administered

parenterally)—benzodiazepine properties that are thought to cause paradoxical reactions.

When a patient given a benzodiazepine exhibits agitation, hostility, aggression, or excitability, the clinician should consider discontinuing the benzodiazepine rather than adding to it to alleviate the problem. If the patient's symptoms abate upon discontinuation, the clinician should document clearly that benzodiazepine-induced disinhibition is a possibility, warranting either further observation or avoidance of benzodiazepines altogether. When the paradoxical reaction is severe, flumazenil may be considered.'

Small doses of flumazenil 0.2 mg IV can be used to counteract benzodiazepine intoxication or excessive postoperative sedation.[10] The drug may also have a role in reversing paradoxical reactions to benzodiazepines.[7, 13] Flumazenil has a fast onset (seconds to minutes) but a short duration of action (two to three hours), necessitating careful clinical observation and, sometimes, repeated administration.[26] Flumazenil must be used cautiously in patients who have used benzodiazepines chronically, because of the potential for abrupt-withdrawal seizures.

Some general guidelines may help reduce risk:

- Patients should be advised not to exceed the prescribed daily dosage and not to double the dose if they miss one.
- Patients should avoid alcohol and all over-the-counter anxiolytics, such as kava and valerian, while taking benzodiazepines, because additive CNS depression may result.

- Patients should inform their prescribers and pharmacists of their complete daily medication regimens (including prescription, over-the-counter, and herbal medications) to preclude potential drug interactions that can increase benzodiazepine concentrations.
- Patients taking alprazolam, estazolam, midazolam, and triazolam should avoid drinking grapefruit juice, a cytochrome P-450 3A4 isoenzyme inhibitor that can increase the concentrations of these benzodiazepines.

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IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF OKLAHOMA

Case No. CIV-14-665-F

CHARLES F. WARNER, ET AL.,

Plaintiffs,

vs.

KEVIN J. GROSS, ET AL.,

Defendants.

TRANSCRIPT OF PRELIMINARY INJUNCTION
HEARING BEFORE THE HONORABLE
STEPHEN P. FRIOT
UNITED STATES DISTRICT JUDGE
DECEMBER 17, 18 AND 19, 2014
9:00 A.M.

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* * * *

[102] proceed.

DAVID LUBARSKY,

(WITNESS SWORN.)

DIRECT EXAMINATION

BY MS. KONRAD:

Q. Good afternoon, Dr. Lubarsky. Can you hear me?

A. I can.

Q. If at any time you can't hear me or if there's a problem with the sound, just let me know. Okay?

A. Okay.

Q. Please state your name—your full name for the record.

A. David Allen Lubarsky.

Q. And what is your specialty, Dr. Lubarsky?

A. I'm an anesthesiologist.

Q. And how long have you been anesthesiologist?

A. I began my training some 30 years ago, and I have been a board certified anesthesiologist for the last 25 years.

Q. And what is your current position?

A. I am the Emanuel M. Papper Chair and Chairman of the Department of Anesthesiology at the University of Miami. I'm also the chief medical officer of their health system.

Q. And do you treat patients in your position?

A. I do.

Q. And have you been deemed an expert in the past?

A. I have.

[103] Q. Let me rephrase that, an expert in federal court?

A. I have.

Q. And have you testified regarding lethal injection protocols in other jurisdictions?

A. I have testified about lethal injection in other jurisdictions, yes.

Q. And what jurisdictions have you testified about their lethal injection protocols?

A. Over the course of the last few years, I have been in Florida and Alabama to give testimony.

Q. Okay. And I want to just ask you quickly about Florida. What type of protocol were you providing testimony about in Florida?

A. I was providing testimony about the use of midazolam as the initial drug in a three-drug protocol.

Q. I'd like to turn your attention to Exhibit 80, Plaintiffs' Exhibit 80, which is marked as your report. Do you have that in front of you?

A. I do. Just turning to it now. Yes, I have it in front of me.

Q. And that is the report that you authored in this case, correct?

A. It is.

Q. And you also have four exhibits attached to your report; is that correct?

[104] A. I do.

Q. And you've also reviewed some documents in this case before writing your report; is that correct?

A. I did.

Q. And just for the record, I'm going to go through quickly the exhibit numbers of the documents that you reviewed before authoring your report, Exhibit 65, which is the DPS executive summary, you've reviewed that?

A. I have.

Q. Exhibit 66, which is the Dallas County autopsy report, you've reviewed that?

A. I have.

Q. Exhibit 68, you were provided with the chemical protocol, which is Attachment D to Exhibit 68, called the Preparation Administration of Chemicals, have you reviewed that?

A. Yes, I have.

Q. And you were provided with Exhibit 70, which was the preliminary autopsy findings of Dr. Cohen; is that correct?

A. Yes, that is correct.

Q. And you've reviewed some of the documents provided with the DPS executive summary, which is labeled as Exhibit 71; is that correct?

A. That is correct.

Q. And since your report was submitted, you've reviewed a few other expert reports; is that correct?

[105] A. Yes.

Q. You've reviewed Defendants' Exhibit 34, which is a letter from Dr. Evans to John Hadden dated December 2nd?

A. Yes. I have to see if I have that with me here. Yes, that is correct.

Q. Okay. I want to ask you now—turn to your opinion and take a look at your report. So we'll just kind of walk through your report if you want to have that in front of you for reference so we're both on the same page.

A. Okay.

Q. And are you having any trouble hearing me? Because there's a delay in the video stream, I just want to make sure there's no delay in the sound.

A. No. The sound seems to be working just fine.

Q. Okay. So let's talk a little bit about the drug midazolam. And I want to talk about what your experience with this drug is, so I'm going to ask you to provide a little bit of background about the drug and just consistent with your report, what is this drug and what is your experience with this drug—or, actually, let me ask the first question, what is this drug?

A. So midazolam is one of a class of drugs known as benzodiazepines. They're meant primarily to reduce anxiety and produce mild sedation with a relatively high level of safety and were developed with that specifically in mind.

[106] Q. Okay. And what is your experience using this drug?

A. I've been using this drug essentially since it came out on the market many years ago, and we use it daily in all of our operating rooms for almost every patient in very small doses. And I would probably say that in my experience overseeing both the clinical operations at Duke University as the vice chair and my role as chairman at the University of Miami that I've probably overseen its administration in one way, shape, or form indirectly a million times.

Q. Okay. And what purposes are you using this drug for in your profession?

A. The drug is almost routinely used, at least for anesthesiologists, as the first drug that we give to patients in the preoperative holding area to make sure that the anxiety of entering the operating room is

not overwhelming. As I'm sure anybody who has undergone an operation, they're very, very nervous and this kind of calms the butterflies, if you will, in their stomach about giving over their lives to the hands of other people.

Q. And have you used it to induce anesthesia?

A. When the drug first came out, we—I did personally use it in that regard, but it is almost never used that way anymore. I certainly don't think I've seen it used for induction of anesthesia, except on the rare occasion to teach a trainee something, but routinely used virtually never because [107] it doesn't work very well in that regard.

Q. Okay. And I'm going to talk about your statement in paragraph 3 on page 2 of your opinion. You say midazolam is not intended for use as a total anesthetic. Explain to me what that means and provide the Court with some information about the term "anesthesia."

A. Sure. So anesthesia is basically rendering a patient insensate to noxious stimuli. When you are talking about a general anesthetic, you are talking about immobility, a lack of sensation, and a lack of consciousness as noxious stimuli are applied. Midazolam does not work to produce that outcome. This has been recognized since its introduction. And that is why it is not recommended and not approved by the FDA for being used as a sole drug during a surgical procedure because it is not sufficient to produce a surgical plane of anesthesia in human beings.

Q. Okay. Well, let's talk about the properties of midazolam and you make some opinions in your report. And let's talk first about what you mention

that it has no analgesic properties, and that's in paragraph 3. What does that mean?

A. That means that the drug does not block pain impulses coming from different parts of the body. Meaning things like surgical incision, manipulation of the bowel, injection of caustic substances. Those would not be blocked. And in some cases, these class of drugs can actually amplify the pain [108] itself. They're ant-analgesic (sic), meaning they amplify pain signals. But primarily, basically, it has no appreciable analgesic effect under any circumstances.

Q. And have you ever heard that it has been used for back pain?

A. Yes. It is used to—because one of its properties is to reduce muscle spasm. And when it does that, if muscle spasm is the cause of nerve compression or distortion of the back anatomy, midazolam will reduce the pain that has been caused by compression of the nerve or the distortion of the anatomy. It has no direct effect to mask the pain, for instance, the way that ibuprofen or Advil might do or morphine might do. It acts—its only action is in reducing muscle tone.

Q. So if somebody were suffering back pain that wasn't caused by muscle spasms, then that would not have any effect on the person?

A. Correct. It would be useless.

Q. Now, I want to bring you to paragraph 5 on page 3 of your report. And you say that midazolam has a ceiling effect on anesthetic depth. Can you explain what that means?

A. Sure. It simply means that when you give a certain amount of drug you expect a certain effect. And people normally assume that, well, if you give twice as

much of the drug you would get twice that effect. That's not the case with midazolam. It reaches a level of sedation and inhibition of [109] firing of the neurons in the brain and you get no more. Despite if you brought a truckload in, you would get no more effect because of the way that it works. It saturates the site where it has an effect and that effect is short of providing a comatose state. And so giving more drug doesn't do anything more. That's the definition of a ceiling effect.

Q. And is this different from a barbiturate?

A. Yes, it is. And the reason is because the two drugs are entirely different classes of drug. They're substantially different. One has been approved as a sole anesthetic, that is barbiturates, you can actually do a full operation with a barbiturate. You cannot do that with midazolam. The reason for that is that midazolam basically makes the nerve cells bind GABA more easily. GABA is a normally occurring substance that makes it hard for the neuron to fire. And if the neuron isn't firing, you're not thinking, you're not feeling. Okay? So it makes it easier for that inhibition to occur. Barbiturates have initially the same type of action, but as the doses increase, they go from just changing the way the receptor works to actually acting as a direct drug agonist. Essentially, the barbiturates substitute for the GABA and act like GABA, which directly inhibits the neurons from firing. Midazolam does not do that.

Q. So explain to us—can you give us an example that might help us understand a little bit better than knowing all these [110] scientific terms?

A. Yes, I'm sorry. I wish that—I wish that it were simpler, but as neurophysiology and cognition are not

easy topics for anybody, even for physicians, to really grab hold of.

THE COURT: Well, excuse me. First of all, what is a GABA receptor?

THE WITNESS: Right. Sorry. So a GABA receptor is a—not using technical terms, it is a binding site for a naturally occurring substance in the brain that promotes the neurons not firing. It says—when GABA is bound, it's much harder for a neuron in the brain to send along an electrical impulse. And so that's where both midazolam and barbiturates act, but they act via different mechanisms on that same receptor and they act in different strength on that receptor. Midazolam strength is much less than the barbiturate strength in that regard.

Q. (BY MS. KONRAD) And just to be clear, is pentobarbital a barbiturate?

A. It is.

Q. Is sodium thiopental a barbiturate?

A. Yes, it is.

Q. And if those drugs are given in large doses, would you expect somebody to become in a coma—in a state of coma?

A. If you gave enough of those drugs, you would achieve that [111] end point. That's where the definition of the term "barbiturate coma" comes from. And it's used often in intensive care units following things like traumatic brain injury or other types of brain injury to quiet the brain. Of note, they don't use midazolam for that.

You had asked—if I may answer the question that was previously asked about trying to explain this in non-scientific terms, perhaps, if that's possible.

MS. KONRAD: Judge, will you allow—

Q. (BY MS. KONRAD) Yes, go ahead.

A. So if you think about the fact that the GABA receptor allows ions to flow in and out of the neuron, it's like people basically coming in and out of a courthouse. And let's say that you want to get a bunch of people into the courthouse and you have two doors that are open and eight doors that are shut. And if you send—if you send four people over to open up four more doors, a lot more people can come in more quickly. If you sent another four people and open up all ten doors and hold those doors open, because you have to hold the door open, then you're going to get maximum flow in and out of that courthouse. If you send another hundred people to hold open those ten doors, there will still only be ten doors open and there will still only be so many people flowing in and out of the courthouse. That's the way midazolam works.

Barbiturates are different. Because those people happen [112] to have sledge hammers in their back pocket. So first you send four people to open four doors, now you've got six open. You send another four people, you've got ten open. Now you send a hundred other people and they find that, well, they really can't have any impact by holding open the door, so they go to the windows next to the doors and they start sledge hammering them and opening up new portals. That's a different mechanism of providing access in and out. And that's what barbiturates do that are different than what midazolam does. It's a difference between having a ceiling effect and not having a ceiling effect

because sending more people with sledge hammers will open up more holes in the courthouse. Sending people just to hold the door open won't have an effect. So that—I don't know if that helps at all, but that is basically the difference between the two drugs.

Q. Thank you for that. We mentioned coma. What is coma?

A. So coma is the cessation of cortical activity and a depression of the reticular activating system which promotes retention memory and processing of stimuli.

Q. And you indicated earlier, I believe I heard you say that midazolam cannot be used to induce a coma. And why is that?

A. Because it's simply not strong enough to reduce all electrical signaling even at maximal effect in the brain. So a coma essentially says that you have EEG silence. That is the electrical activity in the brain has stopped and you're not [113] really processing any more inputs and you're not having any more independent thought. Midazolam cannot do that. It has been studied both in rats and in humans and it has what's called a sigmoidal Emax curve, which is scientific terms for ceiling effect. It gets to a certain point and there's still EEG activity left.

Q. And is that opinion based on your own personal experience and studies or is that based on other people's studies? How are you basing that opinion?

A. There is both published rat and human studies that have directly studied this and developed those curves and it has been shown in human trials for traumatic brain injury that it neither reduces intracranial pressure nor produces electrical silence and distinction to barbiturates, which do both.

THE COURT: Excuse me. When you refer to cessation of EEG activity, are you essentially—is that the same thing as electrical silence?

THE WITNESS: Yes, it is.

THE COURT: Go ahead.

Q. (BY MS. KONRAD) And are you familiar with the term "brain death"?

A. I am familiar with the term "brain death."

Q. And what does "brain death" mean?

A. Brain death actually has a complex definition, but the most important one is an absolute lack of thought processes, [114] plus brain stem reflex absence, which means there is no breathing and there is no effort at breathing. That's one of the primary differences between coma and brain death.

Q. Okay. I'd like to turn your attention to paragraph 8 of your opinion on page 3 where you talk about a paradoxical reaction. Could you explain for the Court what a paradoxical reaction is and what does that mean?

A. Sure. So all benzodiazepines have, as a class of drugs, been associated with a reverse effect, if you will, than that anticipated. You're supposed to have anxiolysis sedation and quieting of the patient with the administration of a benzodiazepine. Somewhere between 1 and 11 percent of patients, depending on the drug and the patient themselves, will experience agitation, combativeness, and anxiety as a result of the administration of the drug, hence the term "paradoxical."

Q. And you mentioned the term "anxiolysis." Could you explain what that means?

A. That just means reducing anxiety, getting rid of anxiety.

Q. So rather than reducing anxiety, it has a different effect that—does it cause anxiety?

A. There's an outward manifestation that looks like anxiety, yes.

Q. And have you ever administered midazolam and seen a paradoxical reaction?

[115] A. I have.

Q. And what happens when that occurs? What do you do to treat it?

A. Well, the recommended treatment and the one that has worked in my personal experience as well as that that's recommended in the literature is the reversal of midazolam, not further administration, but reversal of midazolam with a drug known as Flumazenil.

Q. And what would you expect to happen if you administered additional midazolam if somebody was having a paradoxical reaction to midazolam?

A. They would manifest a—well, in the cases where people have given additional drug thinking they just hadn't given enough, the paradoxical reaction—

THE COURT: Doctor, I'm going to ask you to slow down just a little bit, please.

THE WITNESS: Sorry about that. In the instances where the drug has been further administered after a paradoxical reaction has begun, the patient has simply worsened and gotten more antsy, more aggressive, more combative, and less stable. So sooner or later, they all get reversed.

THE COURT: Sooner or later they do what?

THE WITNESS: They get reversed—they will get a reversal drug or the drug will wear off.

Q. (BY MS. KONRAD) And is there certain populations that are

* * * *

[117] at approximately 60 minutes.

Q. I'm sorry. I didn't understand your last—how many minutes?

A. I said a peak effect—a peak effect from intramuscular injection probably in the 45- to 60-minute range.

Q. In your opinion, approximately how long would it take for someone to become unconscious if administered an IV dose of midazolam of 500 milligrams?

A. No more than a couple of minutes for sure, probably less.

Q. And you said you reviewed the DPS executive summary, which we've marked as Exhibit 65. If you could turn to that exhibit now.

A. Yes.

Q. Okay. I'm going to turn your attention to page 11.

A. Yes.

Q. And if you look at the timeline there, it notes that at 6:23 the execution of Mr. Lockett began and a full dose of midazolam and appropriate saline flush were administered. Do you see that?

A. Yes.

Q. And then at 6:30 it says that the signal was given, five minutes had elapsed, and the physician determined Lockett was conscious. And then it says at 6:33 the signal was given, two minutes had elapsed, and the physician determined Lockett was unconscious. Do you see that?

[118] A. I do.

Q. And then it indicates that the full dose of vecuronium bromide and a majority of the potassium chloride were administered. Do you see that?

A. I do.

Q. And are you aware of the amounts of the drugs that were given during Mr. Lockett's execution?

A. I am.

Q. And on page 24 it references the amounts, which is the 100 milligrams of midazolam, the 40 milligrams of vecuronium bromide, and 200 milliequivalents of potassium chloride, which they indicated only part of that was given. And then I want you to look at page—sorry, one moment—at page 18 of the DPS report. And it's the second full paragraph at the last sentence. It says, "At some point during the administration of these two drugs Lockett began to move and the physician recognized there was a problem." Do you see that?

A. Yes, I do.

Q. Based on this and based on all the other information you read, do you have an opinion, based on this information, whether Mr. Lockett became unconscious from the administration of midazolam?

A. Taking everything at face value and the descriptions, I believe that Mr. Lockett did become

unconscious as indicated in the timeline and from the descriptions that have read [119] elsewhere, yes.

Q. Now, based on accounts of witnesses who observed Mr. Lockett trying to pull up off the table and bucking, speaking, writhing, do you have an opinion whether Mr. Lockett awoke from unconsciousness at some point after he was deemed unconscious?

A. I do have an opinion and that opinion is that he most definitely awoke and that the descriptions as written here are, unless conclusively proven otherwise, indicative of someone who was awake and struggling against the effects and the pain of the other drugs.

Q. Now, on page 18 of the DPS report, it indicates that the IV line had infiltrated. What does that mean?

A. That means that the medicine at some point is no longer going into the vein and into the blood system but being deposited next to the vein and into the muscular tissue or fatty tissue around where that blood vessel is.

Q. And on paragraph 12 of your report you mentioned vecuronium bromide and we talked about that was administered to Mr. Lockett during his execution. What—do you have an opinion whether Mr. Lockett was administered drug into—this drug, the vecuronium bromide, into his tissue?

A. Well, I cannot be sure. It is most likely that the vecuronium bromide was injected into the tissue based on the descriptions given.

[120] Q. And what would it feel like if someone were administered vecuronium bromide while being aware?

A. So, first of all, the volume of drug itself would be extremely painful if injected with—at that volume

into any tissue space. So there is the specific direct pain. But the greatest difficulty that someone would experience would be the feeling of gradual suffocation, the inability to draw one's breath, air hunger, and a progressive suffocation and being quite aware of that.

Q. Could Mr. Lockett have been administered a sufficient dose of vecuronium bromide if he was moving and speaking?

A. He could not have been given the vecuronium bromide intravenously at that dose and still been moving and thinking. That would be inconsistent with the action of the drug.

Q. And let's talk about the third drug that was administered in part and that's the potassium chloride. And you speak about that in paragraph 14 of your report. What is potassium chloride?

A. Potassium chloride is basically a salt. It's just an electrolyte. Both potassium and chloride are found in the body normally, but it primarily resides inside your cells and not outside your cells. And when given, it causes intense pain.

Q. And when you say "intense pain," do you have any description of what type of pain?

A. It has been described as liquid fire when people have [121] accidentally gotten intravenous injections of potassium chloride and been awake. Excruciating, searing, burning.

Q. Do you have an opinion whether Mr. Lockett was likely suffering upon the administration of either the vecuronium bromide or the potassium chloride during his execution?

A. I do. I believe that he suffered upon the injections themselves. He continued to suffer. The

potassium chloride causes tissue necrosis relatively rapidly. It kills the tissue into which it has been injected. And the progressive suffocation due to the slow onset of paralysis would be nothing short of agonizing.

Q. And would it matter, in your opinion, if some of the witnesses had varying accounts of what they were viewing as far as his movements or his sounds, speaking? Some people heard words and some people heard mumbling. Would that change your opinion regarding consciousness?

A. No, not at all. People who are asleep don't make efforts to speak to you. They don't rise up off the gurney. They don't disticulate with their torso. I can imagine that surgery would not proceed very far if anesthetized patients ever did that.

Q. All right. Let's turn to the current lethal-injection protocol in Oklahoma, which is Exhibit 68. And could you turn to Chart D that's in Attachment D.

A. Yes. Okay. Attachment D, did you say?

* * * *

[124] A. It's in the ballpark range. It's not—that's not how people necessarily practice. I've almost never seen anybody get less than 2 to 3 milligrams. Two milligrams is usually the minimal amount that has any effect. But in the 2 to 5 milligram range is what we routinely use as a preanesthetic. But I will point out that after having given that dose, we're still having totally coherent conversations with a wide-awake patient who is just no longer anxious when we're done with our dosing.

Q. And is that the dose that would produce unconsciousness as a sole drug?

A. No, it would never produce unconsciousness at that rate if you were—unless you had a severe preexisting disease.

Q. And at the end, the last sentence of his paragraph, he says, Fatalities have occurred from midazolam in doses ranging from .04 to .07 milligrams per kilogram. Do you have an opinion about that statement?

A. Again, that is true, it is a true statement, but the part that's left out is that those type of fatalities occur in 90-year-olds with congestive heart failure who have not had careful titration of the drug. It does not occur in otherwise healthy individuals in that range. And I don't—I'm not aware of young healthy individuals who have ever been administered 2 milligrams who have had a respiratory arrest reported.

[125] Q. He also says that the 500 milligrams of midazolam that will be used in executions in Oklahoma, this first sentence of his second paragraph under midazolam he references that, and he says this dose is at least 100 times the normal therapeutic dose. Would you agree with that?

A. No, I would not. What you're attempting to do with an execution is provide a surgical plane of anesthesia. Which, of course, we've already talked about that you cannot do with midazolam no matter how much you give. But if you're talking about just inducing unconsciousness, then the normal therapeutic dose is approximately, for an 80-kilogram individual, 30 milligrams and up to 50 milligrams. And so it's about 10 to 15 times the normal therapeutic dose, not 100 times the therapeutic dose.

Q. So midazolam can render an individual unconscious but would not be able to maintain that level of unconsciousness. Is that what you're saying?

A. That is correct.

Q. So if 500 milligrams of midazolam is administered with—inconsistent with this lethal-injection protocol, would that render a person unconscious and insensate for the remainder of the execution?

A. I do not believe that it would and the number of executions that have occurred with reported movements after the midazolam has been administered would suggest that it doesn't [126] work in humans when—in that way. That is, it will not keep you insensate and immobile in the face of other noxious stimuli.

Q. And you use the term "noxious stimuli." What does that mean?

A. Anything that is disconcerting to the brain. That can be everything from air hunger from rising carbon dioxide levels after vecuronium is given to the pain of the potassium chloride injection.

Q. If the vecuronium bromide were administered properly, after the midazolam were given, would people be able to see any movement if the prisoner was, in fact, feeling pain from the administration of potassium chloride?

A. No, they would not. And that's why the use of muscle relaxant is actually disallowed in animal euthanasia because it provides a false sense of security and prevents people from seeing whether or not that surgical plane of anesthesia is still maintained.

Q. Would you agree with the statement that when midazolam is used as specified in Chart D the prisoner would quickly reach an unconsciousness and unresponsive state and would not react to painful stimuli?

A. I do not agree with that.

Q. And why is that?

A. Because patients on whom large doses of midazolam have [127] been tested do respond. We've seen that, like I said, in other executions. But the drug was not approved by the FDA as a sole anesthetic because after the use of fairly large doses that were sufficient to reach the ceiling effect and produce induction of unconsciousness, the patients responded to the surgery.

Q. And would you agree or disagree with this statement: The proper administration of 500 milligrams of midazolam in Chart D makes it a virtual certainty that any individual will be at a sufficient level of unconsciousness to resist the noxious stimuli which could occur from application of the second and third drugs.

A. I disagree. The ceiling effect for midazolam, as we've pointed out, has been clearly established in both animal and human models. And giving more of the drug does not equate with a deeper effect.

Q. Let's talk about note 7, number 7 in Dr. Evans' report that's on the last page of his report that's labeled "Involuntary Movements."

A. Okay.

Q. Have you reviewed that section?

A. I have.

Q. Okay. And have you had the opportunity to look at the article that he cites regarding brain death?

A. I have.

* * * *

[130] would not be able to see these fine motor movements; is that correct?

A. That is correct.

Q. You, in paragraph 19, reference an execution that happened in Arizona where midazolam was given. Have you reviewed information about that execution?

A. I have.

Q. And what is your opinion about the use of 750 milligrams of midazolam in that execution?

A. Well, I would say that that was unintentional experimental proof that large doses of midazolam do not necessarily kill you, make you guarantee unconsciousness, and that the administration of additional doses do not cause further depression of consciousness or Mr. Wood would have stopped breathing and would have gone into a coma were such large doses actually effective. It basically confirms that there is indeed a ceiling effect in—not only in experimental conditions, in published papers that have been provided, but in the inmates who were receiving large doses.

Q. Does it matter in Mr. Wood's execution if the midazolam was introduced all at once or over a period of multiple doses over a period of time?

A. It doesn't really matter. The drug has a sufficient half life that the effect is cumulative. It doesn't disappear at the same rate that, say,

pentobarbital or thiopental does and [131] so it isn't that much different than if you just gave it all at once.

Q. In paragraph 21 of your report, the last page, you have an opinion about midazolam. And could you just restate that for us and explain your opinion.

A. Sure. Midazolam cannot produce a surgical plane of anesthesia. The FDA has said this. The published papers say this. The experimental results of executions did not go as expected prove this. And that is a requirement before causing undue pain and suffering that attends the second and the third drug. So unlike other drugs that have been used, midazolam cannot produce the depth of anesthesia and unconsciousness that is necessary to reliably render the condemned insensate to the following effects of vecuronium bromide and suffocation and potassium chloride and the burning. So I believe that there is a significant risk of harm to the condemned prisoners by the use of the drugs as described herein.

Q. And your second opinion in that paragraph says it amounts to experimentation on human subjects in vulnerable populations. What do you mean by that?

A. Well, no one has ever used this dose of midazolam to produce a surgical plane of anesthesia. They've never been able to reliably produce a surgical plane of anesthesia. And so there is a hypothesis by the state that giving huge doses will produce a surgical plane of anesthesia that's necessary to [132] follow up with the next two drugs.

The definition of experimentation is having a hypothesis and trying it out. And that seems to be what is occurring here because the data, which include the careful modeling showing that there is a ceiling effect of midazolam, its known mechanism of action,

and the proof that it cannot produce electrical silence, even in large doses, would suggest that that hypothesis is false. Yet we're trying it out nonetheless and obviously vulnerable populations or populations that are not at—cannot, at will, refuse to be experimented upon. And it is considered unethical to conduct experimentation on human beings who cannot give their consent to that experimentation.

Q. Thank you. Is it your opinion that to determine consciousness, part of that determination includes noises coming from the person, either speech, speaking? Is that part of what—how you determine whether somebody is conscious or not?

A. It is.

Q. And so if a microphone in the execution chamber were turned off and witnesses were unable to hear attempts to speak, would that affect the ability to, I guess, report whether somebody is conscious or not?

A. It would.

Q. And last question. Would you administer lidocaine to a patient who was unconscious if you were setting a femoral IV

* * * *

[CROSS EXAMINATION]

[135] an excellent drug that reliably produces amnesia to the events following the administration of the drug in terms of long-term recall if used appropriately. And it reduces, like I said, butterflies in one's stomach.

Q. So the only use you use it for, then, is removal of anxiety. Is that what your testimony is?

A. Right now? Yes.

Q. Well, when you say "right now," did you previously use it for other things?

A. Yes. I used it for induction on other occasions and it was not really a suitable drug.

Q. When was the last time you used it for that induction, Doctor?

A. Oh, a long time ago. More than ten years ago.

Q. Did the patient awaken during the procedure, Doctor?

A. Well, I would never—I'm sorry, you misunderstood me. The drug would never be used and has never been used as a sole anesthetic to give anesthesia during a surgery. Not ever. It has been used as an induction of unconsciousness before the administration of other drugs that are sufficient for anesthesia. What it has been used for is just to basically get the patient off to sleep so that you can then either do—do some minor procedures.

The place where the drug is most often used to—is, as I've said, and is indicated for things that don't have a great [136] deal of noxious stimuli, painful stimuli, like colonoscopies. But even then, they usually combine midazolam with some narcotic because the midazolam is usually insufficient.

Q. Isn't also one of the considerations for using an analgesic, though, Doctor, that you're performing a surgical procedure and the patient is going to be later brought back to consciousness to resume their lives. I mean, isn't that an anticipation?

A. You're using it because otherwise the patient would respond and potentially wake up. It has nothing to do with waking them up after the surgery. You're concerned about them waking up in the middle of

surgery. It's not an appropriate drug. It's not approved by the FDA. It is not used by any anesthesiologist as the sole drug to deliver a surgical plane of anesthesia, which, as I've said, is a requirement for euthanasia of animals.

Q. Okay. So you're talking a surgical plane of anesthesia when you're talking about induction of anesthesia in your report. Is that what you're saying?

A. No, that is not what I'm saying. So, once again, induction of anesthesia is merely getting a patient off to sleep. A surgical plane of anesthesia is maintaining unconsciousness and maintaining the patient insensate and immobile to the painful stimuli that will follow.

Q. Okay. So it's your belief that in an execution a surgical [137] plane of anesthesia needs to be attained and maintained. Is that your testimony?

A. That is correct.

Q. Doctor, you testified a little bit earlier—

A. Well, excuse me. Excuse me. I—excuse me. I don't—I want to make this really clear. I'm not—I'm not telling you how you should perform an execution. What I am saying is that if you do not have a surgical plane of anesthesia during an execution, the condemned is likely to suffer or potentially could suffer egregious harm from the administration of the next drugs.

Q. In your opinion, correct, Doctor?

A. Sure.

Q. Okay. Ceiling effect, you talked about that a little bit earlier. Can you tell me approximately where

that occurs? At what point do you no longer receive benefit from midazolam?

A. Probably after about 40 milligrams, 40 to 50 milligrams. I'd have to check the specific studies that defined the ceiling effect in terms of plasma levels and equate that back to bolus dosing. That would take some time and calculations. So I don't want that to be an absolute answer.

Q. So you can't, as you sit here today, tell us where the ceiling effect is; is that correct?

A. No, I can tell you where it is related to blood levels by referring to a couple of the papers. I just can't equate it to [138] the dosing that is being delivered in an execution.

Q. Okay. So you're saying you can tell us? If you can, I would like to know what it is, Doctor.

A. I understand. I said I can't tell you right now. I can calculate it and come back with an answer, but I can't do it at the moment. It requires a complex calculation working backwards from plasma levels to administration to volume of distribution to the time between the injection and those measurements are taken. It's not an easy calculation.

Q. Okay. Doctor, you also said that you reviewed Attachment D to the current protocol in Oklahoma; is that correct?

A. Yes. Can you refer which exhibit you're referring to, please?

MR. HADDEN: I don't have plaintiffs' exhibit numbers. Do you know what that is?

MS. KONRAD: Sixty-eight.

Q. (BY MR. HADDEN) Sixty-eight.

A. So I have—I have the Exhibit 68. Which—what attachment are you referring to?

Q. It's called Attachment D at the top. It says Preparation and Administration of Chemicals. Is that the right one?

A. Yes.

Q. Okay.

A. Yes, I have that.

Q. If you would turn then to page 2 and just look for me at [139] Charts A and B. Are you saying that you don't have a problem with Charts A or B?

A. I am not going to comment on whether or not an execution protocol is or is not appropriate. I can tell you that the use of sodium thiopental has been shown, through scientific research that I have performed, may be insufficient to render a patient unconscious through the entirety of the execution. That much I can tell you. Anything further would be a breach of my ethics to comment specifically about protocols and their construct.

Q. Okay. But earlier when you were asked some questions you were kind of going back and forth between barbiturates and why they were so much better than benzodiazepines. And I thought what you said in there was that barbiturates work a lot better and don't have a ceiling effect and can achieve a surgical plane of anesthesia. Is that correct?

A. That's what I said, that is correct.

Q. Okay. So without considering these charts, Doctor, considering if we just said a hypothetically 200-pound man, how much pentobarbital would we

need to give that individual to obtain a surgical plane of anesthesia?

A. As I've said, it is not my place to inform the state how to perform an execution, and I will respectfully decline to answer that. It is a formal breach of ethics as defined by both the American Society of Anesthesiology and the American [140] Medical Association. I can only comment on whether or not the protocols are likely to produce egregious harm and suffering. And I believe they all are actually constructed to produce egregious harm and suffering and have testified as such in other places. My testimony is on record in that regard about the use of thiopental.

Q. Okay. And at least in the case of Florida, your testimony was disregarded and it was found to be constitutional, correct?

A. I don't believe my testimony was disregarded.

Q. It was found constitutional against your testimony, correct, Doctor?

A. The judge made a ruling that absent evidence that what I said was more valid than what Dr. Evans said, he was not going to change things. In the intervening time, there have been a number of executions where the use of midazolam has found to be faulty. And I believe that given that evidence, the judge might rule differently today.

Q. I see. So—

A. That's my opinion.

Q. —in Florida, they've had complications that have required the Court to reverse it? Is that what you're saying?

A. They have not reversed it yet, but they have experienced problems with the executions.

Q. Okay. They currently do have a twelfth execution scheduled, though, don't they, Doctor?

* * * *

[144] Q. Okay. You had also testified about paradoxical effect. Do you remember some of those questions, Doctor?

A. Sure.

Q. Okay. Some of the descriptions you gave of what you would see in paradoxical effect sounds as if they would be fairly obvious. Is that fair to say that, Doctor?

A. Sometimes they're obvious, sometimes they're not obvious. The descriptions of paradoxical reactions are many and they cover a broad gamut of presentations including specific case reports that document apparent sedation followed by paradoxical reactions.

Q. Okay. Doctor, just so I'm clear, your testimony is that an IV induction of 500 milligrams of midazolam could not achieve either a surgical plane of anesthesia or a coma; is that correct?

A. That is correct. Well, not reliably. That's a very important point. People have a large range of reactions to all drugs. The question is whether something will do something reliably, which I think is important when you're introducing extremely painful and dilatory substances to follow.

Q. So what are we saying reliably? Are we saying 5 percent, 2 percent? What are we saying?

A. Well, in healthy individuals, in dose-ranging studies that go up to the ceiling effect, there is no EEG

silence reported in humans. So you want me to say "never." But, again, because

* * * *

[REDIRECT]

[150] take a needle with a little plastic sheath over it and they find a vein and they insert the needle into the vein and the plastic sheath—they leave the plastic sheath in and they pull out the needle. It's the exact same thing in a femoral line except for the fact you can't really see the femoral vein. The femoral vein is buried deep, usually a couple of inches below the skin's surface.

And so in preparing for a femoral line, there are a couple of issues. One is, you're going to be digging deeper into the tissue, so the use of lidocaine, if someone is not unconscious, would be highly recommended. And number two is that you would use a longer than normal IV catheter. That wasn't done in this case. And, again, begs the question of competency. And third and not least is the fact that it can be infected. Of course, you're not worried about that with an execution. But it can be infected and so you would—when you're prepping for a femoral line, you're usually putting Betadine or alcohol around the area because the groin is not a sterile arena in which to practice a sterile procedure.

THE COURT: Thank you. Any redirect?

REDIRECT EXAMINATION

BY MS. KONRAD:

Q. Just a few questions, Dr. Lubarsky. I feel like I've asked these a couple of times, but I want to make sure that your opinion is clear for the record. We talked about the [151] execution in Arizona of Joseph

Wood and opposing counsel asked if this was the same drugs that are called for in Oklahoma's execution and you said no. What is the significance of the use of 750 milligrams of midazolam in Mr. Wood's execution to your opinion?

A. It suggests that the 100 or 500 that might be used in Oklahoma now is not reliably going to be effective to produce the desired effect of a deeply unconscious state that is maintained at a surgical plane of anesthesia.

Q. And you mentioned that—you say "we," I guess the community, the medical community knows that midazolam is not used for surgical anesthesia and you said when—we know that from when the drug was being studied and introduced. Can you explain that?

A. Yes. In the original landmark review article published in 1985 by Reeves, et al, it was very clear that they stated that the drug was—had failed when it was used as both an induction and maintenance agent in terms of blunting the effects of surgery. And so people didn't use it and the FDA didn't approve it for that indication.

Q. So there was research done to support the fact this drug could not reach a level of anesthesia that's necessary when you're doing surgery?

A. That is correct.

Q. And Mr. Hadden mentioned a consciousness check. And if [152] one is unconscious at the consciousness check under Oklahoma's protocol after five minutes, if a physician or other personnel deems the person unconscious, is that sufficient to protect against painful and noxious stimuli that would be introduced through the second and third drug?

A. No, it is not sufficient.

Q. And why is that?

A. Because the whole concept of consciousness is about the balance of depressing things such as medications and awakening things such as a variety of different stimuli including pain and air hunger. And so you could be unconscious and not reacting to minor stimuli, but when major stimuli such as are represented by the introduction of the next two drugs come into play, you are jolted into consciousness and you are quite aware and you wake up. And that is—that's why, again, if producing anesthesia for prolonged periods of time were easy, it wouldn't take three years of study. The whole idea of balancing the administration of drugs to the level of painful or annoying stimuli and giving a patient just enough but not too much so that they maintained a surgical plane of anesthesia is an art form. It cannot be simulated in a dry run by people without suitable education.

MS. KONRAD: Thank you.

THE COURT: Any recross?

MR. HADDEN: Just one.

Declaration of David A. Lubarsky, M.D., M.B.A.

I, David A. Lubarsky, do hereby declare the following to be true and correct to the best of my knowledge under the penalty of perjury:

1. I am an anesthesiologist and have provided my opinion as an expert witness in *Warner v. Gross*, No. 5:14-cv-00665-F (W.D. Okla.). I testified on December 17, 2014, at the preliminary injunction hearing in that case.

2. I was not present for the testimony of R. Lee Evans, Pharm.D. I have, however, reviewed the transcript of Dr. Evans' testimony. This document was provided to me late in the evening on December 22, 2014. Due to the holiday, I was unable to review the transcript until December 29.

3. I have been asked to provide my opinion regarding Dr. Evans' testimony specifically with regard to his statements about the effects of midazolam on the spinal cord and brain.

4. Dr. Evans' testimony is wrong about the facts regarding the mechanism of action of midazolam via GABA. Textbooks are in agreement with my testimony that GABA is an inhibitory substance for brain activity, and its inhibition of brain activity is accentuated by midazolam (Vuyk, Sitsen & Reekers, 2015). His statements that midazolam inhibits GABA is factually incorrect—opposite to scientific fact.

5. Dr. Evans' testimony demonstrates that he is wrong about the facts of where general anesthetics primarily produce anesthesia (*unconsciousness*). This occurs via the

suppression of the cerebral cortex and most likely the reticular activating system which is involved in consciousness. The spinal cord is not considered by any authoritative publication the primary site of anesthetic action, although it may contribute indirectly to anesthetic action and influence immobility during an anesthetic state (Perouansky, Pearce & Hemmings, 2015). Dr. Evans provides no scientific evidence to support his erroneous statements.

6. Despite Dr. Evans' assertions to the contrary, the ceiling effect is scientifically proven as fact and does not occur at the spinal cord level, nor has it been extensively studied there. Primary modes of anesthetic action of midazolam occur in the brain (Perouansky, Pearce & Hemmings, 2015) where electrical activity (*the basis of consciousness and human and animal awareness*) is not further diminished with larger doses.

   Specifically, in one of the only human studies on the ceiling effect, the maximum effect of midazolam on the brain is described in J Clin Pharmacol 2004;44:605-611. It shows that midazolam reaches its maximal effect on brain activity after a dose of approximately 0.3mg/kg (*dose used for induction of unconsciousness in the absence of noxious stimuli*). The effect on the brain does not appreciably increase with increasing doses. This was studied up to double the induction dose, and there is no scientific evidence or scientific theory in existence that would suggest additional doses (*such as Oklahoma's dose of 500mg*) would have any further effect. This is consistent with the definition of a ceiling effect. The repetitive high

dosing to a total of 750mg of midazolam (*during the Arizona execution of Joseph Woods*) without causing cessation of breathing is also consistent with the ceiling effect. This is equally consistent with the FDA's conclusion that midazolam cannot be used as a sole anesthetic as it does not reliably prevent consciousness and responsiveness when used as a sole drug in the presence of noxious (*surgical*) stimuli. Dr. Evans' offers his opinion about the lack of a ceiling effect without any scientific evidence to contradict the objective, published data cited here or the conclusions of the FDA that takes into account all published and unpublished data from clinical trials.

The ceiling effect was also clearly demonstrated in a dog study and the presence of a ceiling effect is specifically referenced in the conclusions. The study concludes that midazolam cannot fully provide the surgical plane of anesthesia required for surgery, even with Oklahoma's proposed 500mg dose (*based on a tail clamp test as a surrogate for surgical stimuli*). This is consistent with the FDA approved use of the drug as an adjunct but not as a sole agent for general anesthesia. *See* Hall RI, Schwieger IM, Hug CC Jr., The anesthetic efficacy of midazolam in the enflurane-anesthetized dog, 1988 Jun; 68(6): 862-6, http://www.ncbi.nlm.nih.gov/pubmed/3377232.

7. On page 636 of his testimony, Dr. Evans describes "the reticular activating system, the part of the brain that controls respiration." This is also factually incorrect. The reticular activating center has nothing to do with

respirations; other parts of the brainstem primarily control respirations. The reticular activating system is primarily involved in wakefulness/consciousness-unconsciousness. *See* Chokroverty & Avidan, 2012, Haines & Mihailoff, 2013 and Shingu & Nakao, 2015.

8. Also on page 636 of his testimony, Dr. Evans discusses a ceiling effect and describes it as an effect "specifically on the spinal cord" and he states "there are studies to show that, you know, you can eliminate a significant portion of an inhaled anesthetic with the use of midazolam, but you can't completely eliminate it, and that's really to maintain a plane of surgical - a surgical plane, and that's all at a spinal cord level." Dr. Evans provides no scientific evidence to support his erroneous statement; neither anesthesia itself, nor midazolam mechanism of action, or its ceiling effect are primarily acting at the spinal cord level (Perouansky, Pearce & Hemmings, 2015 and Vuyk, Sitsen, & Reekers, 2015). The only study known to have looked at reducing inhaled anesthetics using midazolam as a substitute is Hall et al. cited above in paragraph 6, and it does not discuss actions at the spinal cord and contradicts Dr. Evans' testimony.

9. As a practicing anesthesiologist for a quarter of a century, and Chair of one of the largest training programs in the country at the Department of Anesthesiology at the University of Miami Miller School of Medicine, I assert that Dr. Evans' opinions are not scientifically valid, and given his many factual mistakes, dispute his ability to serve as an expert about a field of medicine he does not practice and in which he was never

trained. He would not qualify for a license to administer anesthesia in any jurisdiction of the United States.

I hereby declare the foregoing to be true and correct to the best of my knowledge under the penalty of perjury.

Executed this 8 day of January, 2015.

/s/ David A. Lubarsky
David A. Lubarsky, M.D., MBA

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EXPERT REPORT OF LARRY D. SASICH, PHARMD, MPH, FASHP

RE: *Charles F. Warner, et. al., v. Gross, et. al., No. CIV-14-665F*

November 26, 2014

REPORT OF LARRY D. SASICH, PHARMD, MPH, FASHP

My name is Larry D. Sasich. I am a consultant pharmacist with experience in pharmacy practice, academia, public interest research, drug regulation, and drug safety.

My background, experience and qualifications, in part, include:

- Serving as Chairperson of the Department of Pharmacy Practice at the LECOM School of Pharmacy in Erie, Pennsylvania.
- Serving as a consultant to Public Citizen Health Research Group, Washington, D.C.
- Serving as a Consumer Representative on the Science Board of Food and Drug Administration, an advisory committee to the FDA Commissioner.
- Serving as a consultant to the Saudi Food and Drug Authority, Riyadh, Saudi Arabia.

I have a Masters in Public Health, with an emphasis in biostatistics and epidemiology, from The George Washington University, and a Doctorate of Pharmacy degree from University of the Pacific. I completed a residency in nuclear pharmacy at the University of

New Mexico. I have also been elected a Fellow in the American Society of Health-System Pharmacists (FASHP). I have authored publications and/or presented analysis on drug safety issues. A complete list of my publications and presentations are listed in my Curriculum Vitae, which is appended to this Report as Exhibit 1, and contains a list of all publications I have authored in the previous ten years.

During the previous four years, I have testified as an expert in *Hill v. Owens, et al.*, 2013cv233771 (Super. Ct. Fulton Cty., Ga.), and in *Sepulvado v. Jindal*, 3:12-cv-00796 (M.D. LA).

I have been retained by counsel for Plaintiffs in *Warner v. Gross*, No. 5:14-cv-00665-F, to provide my opinion on the use of midazolam, vecuronium bromide, and potassium chloride in Oklahoma's execution procedures. I have been asked to provide my opinion regarding the safety and risks of administering midazolam as an anesthetic in executions, and to discuss whether it has any analgesic properties, whether it has a ceiling effect, and whether it has risks of paradoxical reactions. I have also been asked to consider whether Oklahoma's increase of the midazolam dosage from 100 mg to 500 mg intravenously in the lethal-injection protocol would ameliorate risks that an individual would be subjected to significant pain and suffering before death.

I am being compensated at the rate of $300.00 per hour for my review and testimony in this case. To date, I have billed $1,200.00.

Sources of the facts and data I have considered in forming my opinions are

1. The Oklahoma Department of Public Safety – The Execution of Clayton D. Lockett (Executive Summary)
2. Procedures for the Execution of Offenders Sentenced to Death, Anita Trammel, Warden, Oklahoma State Penitentiary. Effective April 14, 2014.
3. Attachment D, to Procedures for the Execution of Offenders Sentenced to Death, Robert Patton, Director, Oklahoma State Penitentiary. Effective September 30, 2014.
4. The current US Food and Drug Administration (US FDA) approved professional product labels for midazolam, vecuronium bromide, and potassium chloride (attached to this Report as Exhibits 2, 3, and 4).
5. Transcripts of interviews with David Autry, Ziva Branstetter, Redacted Name #7, and Commissioner Mike Thompson.
6. Published literature as cited within this Report.

According to the Oklahoma Department of Public Safety's Executive Report, Mr. Lockett's execution team had difficulty in establishing vascular access in sites routinely used to administer IV drugs. Access was eventually established in the right femoral vein. Midazolam was administered. According to reports, the full dose of midazolam 100 mg (20 ml) was administered. Five minutes after the beginning of the administration of midazolam, a physician declared that Mr. Lockett was still conscious. Seven minutes after the beginning of the administration of midazolam, a physician declared that Mr. Lockett was

unconscious. Then, vecuronium bromide was administered followed by potassium chloride. According to the State's report, 90% of the potassium chloride was administered.

Mr. Lockett began to move and make sounds approximately three minutes after the Warden signaled for the vecuronium bromide to be administered. The movement continued for approximately six minutes before the blinds were drawn, and continued after the blinds were drawn. A Department of Corrections' employee described Mr. Lockett's movements after the blinds were drawn, and said that he had to hold down Mr. Lockett's shoulder so Mr. Lockett would not buckle. According to the Executive Summary, at some point during the execution the IV line infiltrated. Mr. Lockett was pronounced dead 43 minutes after the execution began.

Based on my expertise and background as well as my review of the documents as stated above, I offer the following opinions:

I. Midazolam

Midazolam is a benzodiazepine drug for injection that is FDA approved for:

- Intramuscular (IM) or intravenous (IV) for preoperative sedation/anxiolysis/amnesia;
- IV for sedation/anxiolysis/amnesia, either alone or in combination with other Central Nervous System depressants, prior to or during diagnostic, therapeutic or endoscopic procedures, such as bronchoscopy, gastroscopy, cystoscopy, coronary angiography, cardiac catheterization, oncology procedures,

radiologic procedures, suture of lacerations and other procedures;

- intravenously for induction of general anesthesia, before administration of other anesthetic agents.
- continuous intravenous infusion for sedation of intubated and mechanically ventilated patients as a component of anesthesia or during treatment in a critical care setting.[1]

Midazolam is a short-acting benzodiazepine central nervous system (CNS) depressant with a rapid onset of action. When given IV, sedative effects occur in 3 to 3.5 minutes. The time to onset of sedative effects after IM administration in adults is 15 minutes, with the peak effect occurring 30 to 60 minutes after injection.

There are three main reasons midazolam is an inappropriate choice to use as the anesthetic drug in Oklahoma's execution procedure: It has no analgesic effect; it has a ceiling effect; and it can cause a paradoxical reaction.

A. Lack of Analgesic Effect

Midazolam has no analgesic (i.e., pain relieving) effect. The absence of an analgesic effect for midazolam similar to that of the opioids has been recognized for years.[2]

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[1] Akom, Inc. Professional Product Label – Midazolam Injection, July 2012. At http://dailymed.nlin.nih.govidaily med/drugInfo.cfm?setid=737361a0-861-4d3c-ba5e-44df3f49fa22. Accessed November 21, 2014.

[2] Reves JG, Fragen R.1, Vinik HR, Greenblatt DJ. Midazolam: pharmacology and uses. Anesthesiology. Mar 1985;62(3):310-324.

In fact, studies have shown that midazolam increases the perception of pain. Gamma amino butyric acid (GABA) receptor agonists such as midazolam have been shown to enhance pain. An agonist is a drug that binds to receptors on cells and activates the receptor to produce a biological response. Recent research rated experimental pain from cold, heat, and restricted blood supply or electrical sources before and during moderate sedation with midazolam. Midazolam increased cold, heat and electrical pain perception significantly on a 10-point pain rating scale.[3]

B. Ceiling Effect

At low doses, the benzodiazepines, including midazolam, are expected to have anxiolytic and anticonvulsive effects. As the dose increases, the benzodiazepines are expected to produce sedation, amnesia, and finally lack of response to stimuli such as pain (unconsciousness). While the effect of the benzodiazepines is clearly dose-related, the literature indicates that there is a ceiling beyond which increasing the dose does not increase the effect.[4] In practical terms, more is not necessarily better.

The use of midazolam to render a person unconscious and unable to sense the painful effects from the drugs vecuronium bromide and potassium chloride has not been subjected to scientific testing. I was unable to determine the midazolam dose for a ceiling

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[3] Frölich MA, Zhang K, Ness T. Effect of Sedation on Pain Perception. Anesthesiology 2013; 118(3):611-621. doi:10.1097/ALN.0b013e318281592d.

[4] Saari TI, Uusi-Oukari M, Ahonen J, Olkkola KT. Enhancement of GABAergic activity; neuropharmacological effects of benzodiazepines and therapeutic use in anesthesiology. Pharmacol Rev. Mar 2011;63(1):243-267.

effect on unconsciousness because there is no literature in which such testing has been done.

C. Paradoxical Reaction

The professional product label for midazolam warns of paradoxical reactions:

> Reactions such as agitation, involuntary movements (including tonic/clonic movements and muscle tremor), hyperactivity and combativeness have been reported in both adult and pediatric patients. These reactions may be due to inadequate or excessive dosing or improper administration of midazolam; however, consideration should be given to the possibility of cerebral hypoxia or true paradoxical reactions.

A precise incidence or risk of any adverse drug including paradoxical reactions with midazolam – as with most drugs – is unknown. No national adverse drug reaction reporting system is capable of detecting all of the reactions that occur with a drug. There is no system available to know with accuracy the number of patients who have actually used a drug. Without these two pieces of information, the *precise* risk or incidence of adverse drug reactions cannot be calculated. However, the medical literature contains numerous reports of paradoxical reactions to benzodiazepines in adults.[5] Some reports estimate that that paradoxical reactions vary from 1% to above 10%.[6]

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[5] Mancuso CE, Tanzi MG, Gabay M. Paradoxical reactions to benzodiazepines: literature review and treatment options. Pharmacotherapy. Sep 2004;24(9):1177-1185.

[6] Shin YH, Kim MH, Lee JJ, et al. The effect of midazolam dose and age on the paradoxical midazolam reaction in Korean pediatric patients. Korean J Anesthesiol. Jul 2013; 65(1):9-13.

There are published case studies supporting that a paradoxical reaction can occur after a person is adequately sedated.[7] After initial sedation with midazolam in response to surgical manipulation, one patient experienced a paradoxical reaction to midazolam. As the total dose of midazolam increased, symptoms of the paradoxical reaction became worse.

A 27-year-old male was initially given 2 mg of midazolam IV prior to examination of his bladder and urethra. Several minutes after starting the procedure he became agitated, anxious, and restless. An additional 5 mg of midazolam was given over the next 10 minutes with no improvement in symptoms. Upon arrival in the post-op area he continued to be restless and agitated. Lorazepam, also a benzodiazepine, was given in a 4 mg dose with no changes in his symptoms, Four minutes after giving flumazenil, a drug used to reverse the effects of benzodiazepines, his symptoms stopped and he fell asleep.[8]

There is also literature that certain populations might be more at risk for the paradoxical effect, i.e. history of aggressive or impulsive behaviors, history of drug or alcohol abuse, history of psychiatric disorders.

II. Vecuronium Bromide

Vecuronium bromide is classified as a non-depolarising neuromuscular blocking agent. The drug is approved for IV use only as an adjunct to general anesthesia, to facilitate endotracheal intubation and

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[7] Rodrigo. CR. Flumazenil Reverses Paradoxical Reaction with Midazolam. Anesth Prog. 1991; 38:65-68.

[8] Thurston TA, Williams CG, Foshee SL. Reversal of a paradoxical reaction to midazolam with flumazenil. Anesth Analg. Jul 1996; 83(1):192.

to provide skeletal muscle relaxation during surgery or to mechanically assist breathing.[9]

There are two main types of neuromuscular blocking agents:

1. Depolarising. These first stimulate contraction of muscles by their action at the neuromuscular junction and then produce paralysis.
2. Non-depolarising. By contrast, these drugs do not cause any muscle activity before relaxation. These are competitive Mockers at the acetylcholine receptors on the neuromuscular junction. Competitive Mockers means that the effect can be reversed by drugs that increase acetylcholine. Vecuronium is an example of a non-depolarising agent.

The drug is approved for IV use only for surgical procedures and mechanical ventilation or breathing. These procedures are performed in hospitals under close monitoring. Examples of vecuronium bromide infiltration could not be found in the literature.

According to reports, 40 ml of vecuronium bromide was administered during the execution of Mr. Lockett. Based on various accounts of the execution, Mr. Lockett was not paralyzed after the vecuronium bromide was administered, as he began to move and speak at some point during the administration of potassium chloride. The IV had infiltrated at some point, and Mr. Lockett may have been experiencing the suffocation from the slow absorption of the

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[9] Sagent Pharmaceuticals, Inc. Professional Product Label Vecuronium Bromide, July 2011. At http://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=d3b851af-f8e9-4375-bbbe7132e66ee0d0. Accessed November 22, 2014.

vecuronium bromide into tissue, or may have been experiencing pain from the drug itself. The pH of a typical product is adjusted to the acid side, pH 3.5 to 4.5. The signs and symptoms of IV infiltration include swelling, discomfort, and burning. This volume of an acidic solution may have caused Mr. Lockett pain and discomfort.

III. Potassium Chloride

Potassium-containing solutions are intrinsically irritating to tissues. Therefore, extreme care must be taken to avoid infiltration. Local tissue necrosis (death) and subsequent sloughing may result if extravasation occurs. Chemical inflammation and spasm of veins have also been reported.

Should infiltration occur, administration should be discontinued immediately. Local infiltration of the affected area with procaine hydrochloride, 1%, to which hyaluronidase may be added, will often reduce venospasm and dilute the potassium remaining in the tissues locally. Local application of heat may also be helpful.

Based on reports I have reviewed, Mr. Lockett was administered an estimated 90 ml of his 100 nil dose of potassium chloride. Mr. Lockett would have experienced severe pain from the infiltrated potassium chloride. I am not aware of any actions that were taken to minimize or alleviate the severe pain that Mr. Lockett would have experienced from the potassium chloride hi his tissue.

IV. Conclusion

The Oklahoma Department of Public Safety Executive Summary of Mr. Lockett's execution describes IV infiltration at the access site in the right groin. The

physician present at the execution believed that the drugs were being absorbed into Mr. Lockett's tissue, although it is not certain when the infiltration began. Drugs that infiltrate into surrounding tissue enter the blood stream and distribute at a slower rate than if given directly into a vein.

At least four possibilities arise as to why Mr. Lockett began to move and talk after midazolam was administered and the physician declared Mr. Lockett to be "unconscious." One, midazolam is not an analgesic and therefore as the IV fluids continued to infiltrate, he was aroused and began to move and talk in response to pain. Two, Mr. Lockett experienced a paradoxical reaction to midazolam. Three, Mr. Lockett reacted to a combination of pain caused by drug infiltration (either vecuronium bromide or potassium chloride or both) and a paradoxical reaction to midazolam. Four, Mr. Lockett may have reacted to the awareness of the beginning of suffocation by paralysis from the vecuronium bromide itself Moreover, the onset of IV vecuronium bromide is approximately three minutes. Mr. Lockett could not have received an adequate dose of this drug, as he was able to move and speak.

I could find no evidence to suggest that a 500 mg dose of midazolam rather than 100 mg would have prevented the events Mr. Lockett suffered. Because of midazolam's chemical properties (including having no analgesic effect and having a ceiling effect), and because midazolam can produce a paradoxical reaction, it is not an appropriate drug to use when administering a paralytic followed by potassium chloride. The pain suffered by Mr. Lockett could potentially be suffered by others, but if the paralytic is

properly administered, it would prevent the condemned prisoner from being able to outwardly express pain.

I reserve the right to change my opinion should any additional information become available and be provided to me.

Dated: November 26, 2014

Signed: /s/ Larry D. Sasich
Larry D. Sasich

EXHIBIT 2

MIDAZOLAM - midazolam hydrochloride injection
Akorn, Inc.

Midazolam Injection, USP
Rx only
CIV
WARNING

***Adult and Pediatric*: Intravenous midazolam has been associated with respiratory depression and respiratory arrest, especially when used for sedation in noncritical care settings. In some cases, where this was not recognized promptly and treated effectively, death or hypoxic encephalopathy has resulted. Intravenous midazolam should be used only in hospital or ambulatory care settings, including physicians' and dental offices, that provide for continuous monitoring of respiratory and cardiac function, i.e., pulse oximetry. Immediate availability of resuscitative drugs and age- and size-appropriate equipment for bag/valve/mask ventilation and intubation, and personnel trained in their use and skilled in airway management should be assured. (see WARNINGS.) For deeply sedated pediatric patients, a dedicated individual, other than the practitioner performing the procedure, should monitor the patient throughout the procedure.**

The initial intravenous dose for sedation in adult patients may be as little as 1 mg, but should not exceed 2.5 mg in a normal healthy adult. Lower doses are necessary for older (over 60 years) or debilitated

patients and in patients receiving concomitant narcotics or other central nervous system (CNS) depressants. The initial dose and all subsequent doses should always be titrated slowly; administer over at least 2 minutes and allow an additional 2 or more minutes to fully evaluate the sedative effect. The use of the 1 mg/mL formulation or dilution of the 1 mg/mL or 5 mg/mL formulation is recommended to facilitate slower injection. Doses of sedative medications in pediatric patients must be calculated on a mg/kg basis, and initial doses and all subsequent doses should always be titrated slowly. The initial pediatric dose of midazolam for s edation/anxiolys is /amnesia is age, procedure, and route dependent (see DOSAGE AND ADMINISTRATION for complete dosing information).

Neonates: Midazolam should not be administered by rapid injection in the neonatal population. Severe hypotension and seizures have been reported following rapid IV administration, particularly with concomitant use of fentanyl (see DOSAGE AND ADMINISTRATION for complete information).

DESCRIPTION

Midazolam hydrochloride is a water-soluble benzodiazepine available as a sterile, nonpyrogenic parenteral dosage form for intravenous or intramuscular injection. Each mL contains midazolam hydrochloride equivalent to 1 mg or 5 mg midazolam compounded with 0.8% sodium chloride and 0.01% disodium edetate, with 1% benzyl alcohol as preservative; the pH is adjusted to 3.3 to 3.5 with hydrochloric acid and, if necessary, sodium hydroxide.

Midazolam is a white to light yellow crystalline compound, insoluble in water. The hydrochloride salt of midazolam, which is formed *in situ*, is soluble in

aqueous solutions. Chemically, midazolam HC1 is 8-chloro-6-(2-fluoro-pheny1)-1-methyl-4H-imidazo[1,5-a] [1,4]benzodiazepine hydrochloride. Midazolam hydrochloride has the molecular formula C18H13C 1FN3 -HC1, a calculated molecular weight of 362.25 and the following structural formula:

EXHIBIT 4

Potassium is the major cation of body cells (160mEq/liter of intracellular water) and is concerned with the maintenance of body fluid composition and electrolyte balance. Potassium participates in carbohydrate utilization, protein synthesis, and is critical in the regulation of nerve conduction and muscle contraction, particularly in the heart. Chloride, the major extracellular anion, closely follows the metabolism of sodium, and changes in the acid-base of the body are reflected by changes in the chloride concentration.

Normally about 80 to 90% of the potassium intake is excreted in the urine, the remainder in the stools and to a small extent, in the perspiration. The kidney does not conserve potassium well so that during fasting, or inpatients on a potassium-free diet, potassium loss from the body continues resulting in potassium depletion. A deficiency of either potassium or chloride will lead to a deficit of the other.

INDICATIONS AND USAGE

Potassium Chloride Injection is indicated in the treatment of potassium deficiency states when oral replacement is not feasible.

THIS HIGHLY CONCENTRATED, READY-TO-USE POTASSIUM CHLORIDE INJECTION IS INTENDED FOR THE MAINTENANCE OF SERUM K^+ LEVELS AND FOR POTASSIUM SUPPLEMENTATION IN FLUID RESTRICTED PATIENTS WHO CANNOT ACCOMMODATE ADDITIONAL VOLUMES OF FLUID ASSOCIATED WITH POTASSIUM SOLUTIONS OF LOWER CONCENTRATION.

When using these products, these patients should be on continuous cardiac monitoring and frequent testing for serum potassium concentration and acid-base balance.

CONTRAINDICATIONS

Potassium Chloride Injection is contraindicated in diseases where high potassium levels may be encountered, and inpatients with hyperkalemia, renal failure and in conditions in which potassium retention is present.

WARNINGS

THIS HIGHLY CONCENTRATED, READY-TO-USE POTASSIUM CHLORIDE INJECTION IS INTENDED FOR THE MAINTENANCE OF SERUM K^+ LEVELS AND FOR POTASSIUM SUPPLEMENTATION IN FLUID RESTRICTED PATIENTS WHO CANNOT ACCOMMODATE ADDITIONAL VOLUMES OF FLUID ASSOCIATED WITH POTASSIUM SOLUTIONS OF LOWER CONCENTRATION.

TO AVOID POTASSIUM INTOXICATION, DO NOT INFUSE THESE SOLUTIONS RAPIDLY.

PATIENTS REQUIRING HIGHLY CONCENTRATED SOLUTIONS SHOULD BE KEPT ON CONTINUOUS CARDIAC MONITORING AND UNDERGO FREQUENT TESTING FOR SERUM POTASSIUM AND ACID-BASE BALANCE, ESPECIALLY IF THEY RECEIVE DIGITALIS.

In patients with renal insufficiency, administration of potassium chloride may cause potassium intoxication and life-threatening hyperkalemia.

Administer intravenously only with a calibrated infusion device at a slow, controlled rate. (See DOSAGE

AND ADMINISTRATION.) Because pain associated with peripheral infusion of Potassium Chloride solution has been reported, whenever possible administration via a central route is recommended for thorough dilution by the blood stream and avoidance of extravasation. Highest concentrations (300 and 400 mEq/L) should be exclusively administered via central route.

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF OKLAHOMA

Case No. CIV-14-665-F

CHARLES F. WARNER, ET AL.

Plaintiffs,

vs.

KEVIN J. GROSS, ET AL.,

Defendants.

TRANSCRIPT OF PRELIMINARY INJUNCTION
HEARING BEFORE THE HONORABLE
STEPHEN P. FRIOT
UNITED STATES DISTRICT JUDGE
DECEMBER 17, 18 AND 19, 2014
9:00 A.M.

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* * * *

[333] investigation does reflect those events in your opinion, doesn't it?

A. Yes, sir, it does.

Q. In terms of dimensions of the room, you were present when counsel for plaintiffs came down for a site inspection, were you not?

A. I was there, yes, sir.

Q. And did they measure the room at that time?

A. Yes, sir, they did.

MR. HADDEN: No further questions.

THE COURT: You may step down.

We'll have the plaintiffs' next witness.

MS. GHEZZI: We will call Dr. Sasich.

THE COURT: Very well.

LARRY SASICH,

(WITNESS SWORN.)

DIRECT EXAMINATION

BY MS. KONRAD:

Q. Good morning, Dr. Sasich.

A. Good morning.

Q. Please state your name for the record.

A. First name Larry, last name Sasich. Spelled S, as in Sam, A, S, as in Sam, I-C-H.

Q. And what is your profession, Dr. Sasich?

A. I'm a pharmacist by education and presently I'm a [334] consultant and I'm also co-founder of Patient Drug News Limited.

THE COURT: Co-founder of what?

THE WITNESS: It's called Patient Drug News Limited. And we are providing USFDA-approved patient drug safety information to the public, not only in English, but in foreign languages. And our first attempt has been—our first—

THE COURT: All I asked was what. Go ahead. Next question.

Q. (BY MS. KONRAD) I'd like to turn your attention to Plaintiffs' Exhibit 77. Does this look like a report that you authored for this case?

A. It does.

Q. And your report included some attached exhibits?

A. Yes.

Q. Let's look at the first exhibit, which is your CV.

A. Yes.

Q. You don't practice medicine as a pharmacist, do you?

A. No.

Q. And if you could, I don't need you to go into detail because the Court has your CV in front of you, but can you just give a brief 30-second description of your experience.

A. As I said, I'm a pharmacist by education. I've tended to specialize over the years in an area that is called "drug information." This is the retrieval and the critical analysis [335] of the published literature. I have a lot of experience—substantial experience in academia as a tenured faculty member at Idaho State University College of Pharmacy. And at that institution I was also the acting associate dean. More recently, I was the department chair at the LECOM School of Pharmacy in Erie, Pennsylvania, until 2010.

Q. Okay. And I'm going to just briefly have you look at each of the other two or three exhibits that are attached to your CV. The next one is Exhibit 2. And what is this?

A. This is the USFDA-approved professional product information, sometimes called the "package insert," for midazolam injection.

Q. Okay. And let's take a quick look at Exhibit 3.

A. This is an FDA-approved package insert or professional product label for the drug vecuronium.

Q. And let's take a quick look at Exhibit 4. Could you please identify that.

A. This is a professional product label or package insert for potassium chloride injection.

Q. And did you rely upon those drug labels in reaching your opinions in your report?

A. Yes, I did.

Q. And why do you rely on the drug labels here?

A. These are—professional product labels are the most objective and complete information that we have about a drug [336] and its legal use within the United States. Professional product labels are actually legal documents. So we know in a professional practice—professional product label that scientific studies have been submitted and reviewed by the FDA before any information can actually go into a professional product label.

Q. Would you rely on a source such as drugs.com?

A. No, I wouldn't. And I would probably not accept a work product from a student that provided me a report where drugs.com was used as the reference source.

Q. And why is that that you wouldn't rely on a source such as drugs.com?

A. Well, the sources that drug.com (sic) uses are a number of other sources, for instance, Micromedex, Epocrates, Lexi-Comp. Those publications or those products have been criticized in the peer-reviewed medical literature for poor editorial policies, including being out of date and incomplete.

Q. And I'd like to turn your attention to what's marked as Plaintiffs' Exhibit 88. This is an article called "Box Warning Inconsistencies between Drug Information Resources and the Prescribing Information." Are you familiar with this article?

A. Yes, I am.

Q. And if we could take a look at page 3 and if you could explain to me what exactly this article is, Dr. Sasich.

A. Well, this—in this article, the researchers surveyed

* * * *

[342] opinions that you've expressed in your report?

A. No, they did not.

Q. Let's talk about your report. In Section 1, you talk about midazolam.

A. Correct.

Q. And in—you state that there are three reasons that it is inappropriate, in your opinion, to select this drug as an anesthetic drug in Oklahoma's execution procedure.

A. Yes.

Q. Do you see that last sentence under Section 1?

A. Yes.

Q. And what are the three reasons?

A. It has no analgesic effect, it has a ceiling effect, and it can cause a paradoxical reaction.

Q. Okay. Let's start with your first opinion, that it has no analgesic effect. Is there any argument that it

does relieve pain? Is there any evidence to show that it does have an analgesic effect?

A. I'm not aware of any credible scientific argument that it does and it's—actually, it's not approved by the FDA to use in such a way that it would alleviate or prevent pain.

Q. And your opinion also states at the top of page 4 that studies have shown midazolam increases the perception of pain.

A. Yes. We do have—we do have one randomized controlled trial that for different types of pain stimuli that there was a

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[345] THE WITNESS: A-N-I-X-O-L-Y-T-I-C (sic). That means it reduces anxiety.

THE COURT: Okay. Go ahead.

Q. (BY MS. KONRAD) And you mentioned the FDA, so let's turn to the FDA label for midazolam. In particular, I'm looking at your Exhibit 2 and it's six pages into that exhibit, which that label says "Indications and Usage."

A. Uh-huh.

Q. What does that mean?

A. That means that the manufacturer, the sponsor of the drug, has submitted clinical trials that have been reviewed by FDA scientists, qualified researchers, qualified statisticians, that show that the drug actually does what the manufacturer says that it will do. And those are the only uses that a manufacturer can place in a professional product label for a drug, only those uses that have been—that are supported by high-quality scientific research that have

been reviewed and approved by the United States Food and Drug Administration, period.

Q. And is one of the uses of midazolam to be for the administration of anesthesia for purposes of surgery?

A. No.

Q. And so what does that mean?

A. That you wouldn't use it as a single agent to try and perform any kind of surgical procedure.

[346] Q. But does that mean that it was tested and failed or that it wasn't tested for that purpose or do we know?

A. Well, both are possible. It's possible that the manufacturer of the drug did not seek approval for that indication or the manufacturer of the drug submitted data that was insufficient and so the drug failed for that use and it doesn't wind up on the professional product label.

Q. And do you have—you heard Dr. Lubarsky's testimony yesterday where he was speaking about the ceiling effect of midazolam.

A. Uh-huh.

Q. Do you have any disagreement with his description of the ceiling effect for midazolam?

A. No. I thought he did a good job of communicating what sometimes is a difficult pharmacological principle to the general public.

MS. KONRAD: Now would be a good time to take a break and I'll finish up after lunch.

THE COURT: Very well. We'll take our midday break at this time. We'll resume at five minutes after

one, again, guided by the clock on the wall. Court will be in recess.

(RECESS HAD.)

THE COURT: Counsel, you may continue.

Q. (BY MS. KONRAD) Dr. Sasich, before lunch, we were talking about your report and I'd like to turn your attention to [347] Section C of your report under midazolam where we're talking about paradoxical reaction.

MS. KONRAD: While she's doing that, may I approach the witness?

THE COURT: Surely. I've got a copy of it right here and so I can certainly follow along.

MS. KONRAD: I'm okay to proceed without it.

THE COURT: Please do.

Q. (BY MS. KONRAD) Dr. Sasich, if you look at Section C of your report—

A. Yes.

Q. —that says paradoxical reaction. Can you explain what a paradoxical reaction is?

A. Well, with a drug like midazolam or other drugs in its class, the benzodiazepines, you expect somebody to become sedated, become less anxious, become sleepy. But what happens in a paradoxical reaction is the opposite happens. They become agitated, they may be combative, and they can become very, very combative.

Q. Okay. And you—where do you get this information from that midazolam has a paradoxical reaction or could have a paradoxical reaction?

A. Well, the clearest indication is from the drug's professional product label. And the first portion under C of my report is taken directly from the professional product label

* * * *

[350] good source.

Q. Okay. And speaking of this paradoxical reaction, if there is a paradoxical reaction that somebody has to midazolam, can it happen once the person has been sedated by the midazolam?

A. Yes. We have—and I cited a case report in which somebody had been sedated and then received a surgical manipulation and was aroused or awakened or—then the paradoxical reaction started.

Q. And is there—you cite in your report saying that literature notes that certain populations might be more at risk, such as individuals who have a history of aggressive or impulsive behaviors, a history of drug or alcohol abuse, or a history of psychiatric disorders. Where does that information come from?

A. That comes from some of the people that have looked at or studied paradoxical reactions. And so we see—the polite statistical term we use is one that's called an "association," that there seems to be a relationship between personalities and the—and a paradoxical reaction. This is—doesn't show a true cause-and-effect relationship. But rarely do we do the types of reactions that would allow us to state unequivocally that this drug caused this reaction because this person had a particular personality or type of personality. You simply—you can't do it. You don't do trials to try and induce harm. And that's one of the reasons that this concept of risk of

* * * *

[358] A. It's not approved for that use, correct.

Q. And, again, in your opinion here, the reasons why are, you know, why isn't midazolam used for this purpose?

A. Either the manufacturer did studies to try and show that it was effective for this purpose and the drug failed in those clinical trials or the manufacturer never attempted to market the drug as an anesthetic for use in surgery and simply didn't present any data.

Q. Okay. And looking at your conclusion here you said because of the chemical properties, including having no analgesic effect and having a ceiling effect—are those both facts that we know about midazolam?

A. Yes, we do.

Q. Is there evidence to contest the fact that midazolam has no analgesic effect and that it, in fact, has a ceiling effect, is there any data to contest that—those two facts are true?

A. Well, certainly not on the point about being an anesthetic. I was a little surprised about the arguments on the ceiling effect because the literature that I reviewed said, as a class, the benzodiazepines exhibit a ceiling effect and this ceiling effect would be something that you would see with almost every drug as it's going through the drug approval process, the basic pharmacology of the drug looking at the dose response.

Q. And you also said that because midazolam produces a

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[367] Q. Oh, do you have it there in front of you? Let's just go to page 3, then.

A. Page 3?

Q. Yes, sir. If you have that.

A. Yes. I'm at page 3.

Q. All right. I just wanted to start there. At the bottom there I had noted you had been asked some questions about analgesic effect. Do you recall that?

A. Yes, I do.

Q. So your testimony is that there's no analgesic effect whatsoever to midazolam, correct?

A. Correct.

Q. You would agree with me, though, that if someone was unconscious, that whether there's an analgesic effect or not is of no consequence, correct?

A. No.

Q. And why do you say that?

A. Because they could be aroused by painful stimuli and no longer be unconscious.

Q. But if they're unconscious to the point that they could resist the noxious stimuli, the fact that there is no analgesic effect would be of no consequence, correct?

A. But I don't know what that point is. So, you know, I can't—I can't answer that question, so—it would be pure speculation on my part.

[368] Q. Okay. Doctor, do you have some knowledge of the general uses of midazolam in common practice?

A. Yes, I do.

Q. Is it your testimony that there are no licensed practitioners in the United States of America utilizing midazolam without an analgesic for any procedure?

A. Oh, yeah, certainly. Many procedures that don't require anesthesia.

Q. Okay. So you're saying there are people using midazolam but not an analgesic?

A. Right. Not as anesthesia.

Q. Okay.

A. And where it's a very useful drug.

Q. Okay. What types of procedures would you use it with and not utilize an analgesic?

A. For—you might do it in a colonoscopy, a gastroscopy.

Q. I'm sorry. Slow down just one moment, please.

A. Oh, I'm sorry.

Q. I imagine the court reporter may need you to spell a couple of those. What was the second one you said?

A. Oh, putting a tube down the stomach to view it.

Q. Okay. I've got it.

A. Putting a tube or a camera in the gastrointestinal tract to view it. Minor procedures that may involve insertion of a catheter, the examination of the urinary output channel in both [369] males and females, the urethra, the tube that goes from the kidneys through which we urinate.

Q. Okay. So sounds like here we're talking about insertion of some sort of medical device in some place

in a human that are—I would assume there's some noxious stimuli associated with that, is there not?

A. Well, there certainly may be. But I think, at least in my experience, the people that are facing a colonoscopy, you know, examination of the gastrointestinal tract looking for polyps that are potentially precancerous, this is a major screening program in the United States, one of the things that prevents a lot of people from undergoing this screening is their anxiety over the idea of somebody inserting some type of device in their rectum.

Q. Right. Now, on a colonoscopy, Doctor, they don't just put a camera up there, do they? Don't they also sometimes excise and cut out polyps?

A. Yes, uh-huh.

Q. So it's your testimony that you could receive a tube inserted into you that goes up into you and they cut a piece out of you, but that is less noxious than receiving an injection of vecuronium bromide or potassium chloride. Is that what you're saying?

A. You took a big jump from midazolam to vecuronium and potassium chloride. You're clipping out a polyp—

[370] Q. Right.

A. —one or more—

Q. Noxious stimuli—

THE COURT: Don't interrupt. Let him answer. Go ahead.

THE WITNESS: As far as I'm aware, that—that's not painful.

Q. (BY MR. HADDEN) Okay. And you don't think its painful to receive a tube down your throat to examine your gastrointestinal tract?

A. Well, I would say it would be uncomfortable and it makes somebody extremely anxious with the idea. I mean, just thinking about it, I think, would make most people nervous or anxious.

Q. And the same for having a tube inserted up your urethra?

A. Yes.

Q. So absent someone's trepidation about having that happen, it's your testimony that that is not a painful procedure?

A. As far as, to the best of my knowledge, that many of these procedures are conducted without the need for additional analgesic on an outpatient basis so people can go home and they aren't trying to drive or go home having an opiate, for example.

Q. Okay. Okay. So if we would turn, then, on your report to page 4.

* * * *

[378] another part of Korea, they're likely to get a different number—

Q. Okay.

A. —just because of the variation that there is in individuals. We're not like little machines when we're—you know, we—well, I'm sure you're aware of that, that we all react to drugs in different ways.

Q. Yes, sir. So as you sit here today, though, Doctor, you cannot say whether the Oklahoma inmate

population would be at the 1 percent or lower range or up to the 15 percent range, correct?

A. Correct.

Q. Moving on, Doctor, if you would turn to page 6, please.

A. Okay.

Q. I wanted to look just briefly at that paragraph, the numbered parts, that starts, "The drug is approved for IV use."

A. Okay.

Q. Do you see that, Doctor?

A. "The drug is approved for IV use only for surgical procedures and mechanical ventilation or breathing. These procedures are performed in hospitals under close monitoring. Examples of vecuronium bromide infiltration could not be found in the literature."

Q. Let's stop right there, Doctor. The part where the second line—where you say, "These procedures are performed in

* * * *

[383] very last paragraph, in the middle of it, you said, "Mr. Lockett would have experienced severe pain from the infiltrated potassium chloride." Do you recall that?

A. Yes.

Q. Do you think you're qualified with your education and experience to testify about such a thing?

A. Sure, absolutely. Spent a lot of time in hospitals.

Q. Do you personally have knowledge of the noxious effect of potassium chloride, Doctor?

A. No, I've never received it, but my wife has and she said it was the worst burning sensation she ever had in her whole life.

Q. Okay. But have you seen patients, other than your wife, injected with it or subjected to it at some point?

A. Oh, yeah, and saying the—and saying the same thing, that it was extremely painful. I've discussed with nurses that we have to turn the rate of administration down or stop it for a while. You run the risk of really inflaming a vein. And, you know, I know this is not your concern, but for a patient that you want to leave the hospital, somebody that has an inflamed vein, they can lose it, so you want to be very careful.

Q. Okay. In your opinion, then, Doctor, and I know you don't have—you just said you have never been personally injected with it, but, in your opinion, do you think the noxious effect

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[389] midazolam that the average person would not be rendered unconscious?

A. Not be rendered—I really don't know what the reaction would be. That dose is so much higher than we have any evidence or description of. You could run into a whole other set of adverse reactions that we hadn't seen before.

Q. As you sit here today, though, Doctor, can you say to a reasonable degree of medical certainty IV infusion of 500 milligrams of midazolam will not render someone unconscious? Can you say that?

A. Oh, no, but neither can anyone else.

Q. Okay. One last thing, Doctor. You had been asked some questions about Defendants' 34, which was Bates stamp 6556, that MSDS.

A. Yes.

Q. Okay. I just wanted to ask you just one or two brief questions about that. But the MSDS is something that is required to be prepared by the United States Government, is it not?

A. No, by the manufacturer or by the—I believe it's under OSHA standards and OSHA sets the regulations as what has to be in the Material Safety Data Sheet. And I believe it's the manufacturers that write them.

THE COURT: You've answered the question. Next question.

* * * *

[REDIRECT]

[392] into the weeds.

Q. And if somebody asked you whether a drug would be safe and effective for a certain purpose, what information would you recommend that person review?

A. Well, certainly, even if it is a prescription drug, I would recommend the professional product label, that they read that on the National Library of Medicine's Web site because there's parts of professional product labels that are written specifically for patients and there are also parts of the labels for some drugs that have quite extensive risk information that is written specifically for patients

that must be distributed by pharmacists for each new and refill prescription.

Q. And just two more questions. Mr. Hadden asked you about some executions that happened in Florida. And in Florida, they use a 500 milligram dose of midazolam followed by a paralytic and then potassium chloride, which is similar to what Oklahoma is proposing to do in their upcoming executions. If an individual was, in fact, rendered unconscious by midazolam and was then given a paralytic, would that person then be able to express pain through movement?

A. No, they wouldn't be able to speak or move.

Q. Okay. And final question: Do you know of any data to support that midazolam is a drug that can sufficiently and reliably render someone unconscious such that noxious stimuli

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF OKLAHOMA

CHARLES F. WARNER, ET AL

vs.

KEVIN J. GROSS, ET AL.,

NO. CIV-14-665-F

REVIEW OF THE EXPERT REPORT AND ORAL TESTIMONY OF R. LEE EVANS

Prepared by
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Burlington, ON, Canada

January 8, 2015

This document reviews the oral testimony and report of R. Lee Evans, Pharm.D., provided for a hearing held in Oklahoma City, OK December 17 – 19, 2014 in the matter of Warner, et al vs. Gross, et al. Particular attention is placed on the quality, soundness and completeness of the report and the oral testimony.

EVANS' REPORT

The report consisted of 365 pages, 5 of which were an original written submission. The first part of this document is a review of the references cited as

purportedly supporting Evans' conclusions. The following is the list of references cited by Evans in support of the report.

- www.Drugs.Com (for health professionals) for Thiopental, Pentobarbital, Hydromorphone, Potassium Chloride, Midazolam, Vecuronium Bromide, Pancuronium Bromide or Rocuronium Bromide
- Material Safety Data Sheet for Midazolam Injection, Bedford Laboratories, 2007.
- Clinical Practice Guidelines for Sustained Neuromuscular Blockade in the Adult Critically Ill Patient.
- ASHP Therapeutic Guidelines. American Society of Health System Pharmacists, 2001.
- Final Report on the Safety Assessment of Benzyl Alcohol, Benzoic Acid, and Sodium Benzoate. International Journal of Toxicology 2001:20; 23.
- Benzyl Alcohol. PubChem.ncbi.nlm.gov/compound/benzyl alcohol.

Drugs.Com

This Web site is owned and operated by the Drugsite Trust, a privately held Trust administered by two New Zealand pharmacists. Their Mission Statement is:

> "to empower patients with the knowledge to better manage their own healthcare and to improve consumer safety by assisting in the reduction of medication errors."

The following disclaimer appears on the Drugs.com Web site:

"This material is provided for educational purposes only and is not intended for medical advice, diagnosis or treatment."

The Drugs.com drug database uses material from four medical-information vendors: Wolters Kluwer Health [Facts and Comparisons], American Society of Health-System Pharmacists, Cerner Multum and Thomson Reuters Micromedex [DrugDex]. Individual drug (or drug-class) information content compiled by these sources is delivered complete and unaltered by Drugs.com.

The editorial policies of the reference sources that are used unaltered by Drugs.com have been found to be out of date, incomplete, and of general low editorial quality since the early 1970s.[1] [2] [3] [4]

A major source for the drug information available on the Drugs.com site is the American Hospital Formulary Service Drug Information Essentials (AHFS DI Essentials), a product of the American Society of Health-System Pharmacists. AHFS DI Essentials is promoted as "a resource that focuses on

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[1] Department of Health and Human Services Food and Drug Administration. Prescription Drug Product Labeling; Medication Guide Requirements. Federal Register 1995:44182-44252.

[2] Abernethy AP, Raman G, Balk EM, et al. Systematic review: reliability of compendia methods for off-label oncology indications. Ann Intern Med. Mar 3 2009;150(5):336-343.

[3] Cheng CM, Fu C, Guglielmo BJ, Auerbach AD. Boxed warning inconsistencies between drug information resources and the prescribing information. American journal of health-system pharmacy : Am J Health Syst Pharm. Sep 1 2011;68(17):1626-1631

[4] Paczynski RP, Kruszewski SP. Inadequacies of Statutory Drug Compendia Also Affect the Mental Health Field. Ann Intern Med. September 1, 2009 2009;151(5):364-365.

the essential evidence-based information that will allow pharmacists, nurses, physicians, and other health-care providers quickly access the specific guidance needed to safely and effectively monitor and prescribe drug therapy."

However, the term "evidence based" is now greatly overused and has lost much of its original intended meaning. The original meaning of the term was for medical treatment recommendations based on the best available evidence that is up to date and of high quality. This included well-done controlled clinical trials as being the most authoritative with clinical opinion, uncontrolled clinical observations, being the lowest quality of evidence. Commercial medical information vendors routinely attach "evidence based" to their products without definition.

Drug Information Sources

The table below examines the drug information sources cited in the Evans report. The information cited by Evans was downloaded from the Drugs.com Web site and uses information from the American Hospital Formulary Service Drug Information Essentials (AHFS DI Essentials) a product from the American Society of Health-System Pharmacists.

The term "selected revisions" is not defined by AHFS DI Essentials. There is no indication that these selected revisions ensure that this information is derived from or consistent with the essential information that is contained in the most current professional product labels for these drugs.

It is difficult to rationalize why Evans did not use the most current FDA approved professional product labels as the bases for his report. This information is available free to the public on the government's

DailyMed Web site. This reflects negatively on the quality of the information used in his report and that apparently also formed the bases of his testimony.

Drug/Original Source of Information	Comments
Pentobarbital AHFS DI Essentials. Selected Revisions February 1, 2008. American Society of Health-System Pharmacists, Inc	The Drugs.com information is at least 6 years out of date. The current FDA approved professional product label from Akorn, Inc., last revised 4/12. Link to current pentobarbital professional product label: http://dailymed.nlm.nih.gov/dailymed/druginfo.cfm?setid=5c380eb0-4388-48b8-80ab-ce584b23bc74
Hydromorphone AHFS DI Essentials. Selected Revisions July 9, 2013. American Society of Health-System Pharmacists, Inc.	The Drugs.com information omits the FDA required box warning for hydromorphone. The current FDA approved professional product label from Akorn, Inc., last revised 2/13. Link to current hydromorphone professional product label: http://dailymed.nlm.nih.gov/dailymed/druginfo.cfm?setid=4d33b072-0755-4b6c-9558-2551306756e3
Thiopental AHFS DI Essentials. Copyright, 2004-2014, Selected Revisions July 1, 2007. American Society of Health-System Pharmacists, Inc.	This product is no longer marketed in the US.

Drug/Original Source of Information	Comments
Midazolam AHFS DI Essentials. Copyright, 2004-2014, Selected Revisions July 10, 2013. American Society of Health-System Pharmacists, Inc.	The Drugs.com information omits the FDA required box warning of midazolam. The current FDA approved professional product label from Akorn, Inc., last revised 7/12. Link to current FDA approved professional product label for midazolam: http://dailymed.nlm.nih.gov/dailymed/druginfo.cfm?setid=737361e0-8d1d-4d3c-be5e-44df3f49fe22

Other Documents Submitted

The table below reviews the other references provided in the Evans report.

Document/Source	Comments
PubChem Database Final Report on the Safety Assessment of Benzyl Alcohol, Benzoic Acid, and Sodium Benzoate International Journal of Toxicology 2001; 20: 23.	This 13 year old document concludes: "...Benzyl Alcohol, Benzoic Acid, and Sodium Benzoate are safe for use in cosmetic formulations at concentrations up to 5%. The available data are insufficient to support the safety of these ingredients in cosmetic products in which a primary route of exposure is inhalation. Benzyl Alcohol is safe for use in hair dyes at concentrations up to 10%."
Bedford Laboratories Midazolam Material Safety Data Sheet	This document was last revised July 17, 2007 and is not an FDA requirement. In the U.S., the Occupational Safety and Health Administration requires that MSDSs be available to employees for potentially harmful substances handled in the workplace under the Hazard Communication regulation. The disclaimer on this document contains the following language: "It is not a specification sheet and none of the displayed data should be construed as a specification. Information on this MSDS sheet was obtained from sources, which we believe are reliable, and we believe that the information is complete and accurate. However, the information is provided without any warranty, express or implied, regarding its correctness."

Document/Source	Comments
ASHP Therapeutic Guidelines Clinical Practice Guidelines for Sustained Neuromuscular Blockade in the Adult Critically Ill Patient Society of Critical Care Medicine and American Society of Health-System Pharmacists. Clinical practice guidelines for sustained neuromuscular blockade in the adult critically ill patient. Am J Health Syst Pharm. 2002; 59:179–95.	This document is 12 years old. The methodology for the preparation of this clinical practice guideline was not provided making it impossible to access its quality. Nevertheless, the following is of relevance in the Warner vs. Gross case: "Even though the patient may appear quiet and "comfortable," experienced clinicians understand the indications and therapeutic limits of NMBAs [neuromuscular blocking agents]. Despite multiple admonitions that NMBAs have no analgesic or amnestic effects, it is not uncommon to find a patient's degree of sedation or comfort significantly overestimated or even ignored. It is difficult to assess pain and sedation in the patient receiving NMBAs, but patients must be medicated for pain and anxiety, despite the lack of obvious symptoms or signs. In common practice, sedative and analgesic drugs are adjusted until the patient does not appear to be conscious and then NMBAs are administered. There have been no studies of the use of electrophysiologic monitoring in assessing adequacy of sedation or analgesia."

ORAL TESTIMONY

The table below reviews Evans' oral testimony.

Testimony – Page and Line Numbers	Analyses
Page 632, Lines 4 – 6 Evans states "I mean, even for something like a colonoscopy, you would see it used in combination with a narcotic."	The removal of polyps causes no pain Dartmouth-Hitchcock. Colon Polypectomy (Polyp Removal) http://www.dartmouth-hitchcock.org/gi/colon_polypectomy.html. Accessed 12/29/14

Page 633 Lines 20 and 21 Evans claims "There have been at least 80 case reports of fatalities in the country from midazolam, the use of midazolam."	Although Evans provides no citation, his statement may be from the PubChem database maintained by the US National Center for Biotechnology Information for midazolam. This document says "often in combination with opioids." The citation used by PubChem is Bailly PL et al; Anesthesiology 73 (5): 826-30 (1990). This PubChem document was not on Evans' list of references. Evans' statement is incomplete because he omitted that the data indicates that midazolam was used in combination with an opioid drug, and because he relied on a source that is at least 25 years out of date.
Page 636 Lines 13 – 19 Evans discussion of ceiling effect	Evans' discussion is difficult to follow. No reference is provided to support his opinion about a lack of a ceiling effect with midazolam. The term ceiling effect is defined as "the phenomenon in which a drug reaches a maximum effect, so that increasing the drug dosage does not increase its effectiveness."
Page 636 Lines 20 – 23 Evans is referring to the reticular activating system as the respiration center.	Evans' statement is incorrect. The reticular activating system (RAS), or extra-thalamic control modulatory system, is a set of connected nuclei in the brains of vertebrates that is responsible for regulating arousal and sleep-wake transitions.
Page 637 Line 11 to Page 638 Line 2 Discussion of GABA receptors	Evans' response is unclear. GABA is the main inhibitory neurotransmitter in the central nervous system. Midazolam increases the effects of GABA, an effect that results in its pharmacologic effects.
Page 640 Lines 3 – 5 Response on feeling pain with midazolam	There are examples of patients sedated with midazolam that have responded to painful stimuli [1] 1. Rodrigo CR. Flumazenil Reverses Paradoxical Reaction with Midazolam. Anesth Prog. 1991; 38:65-68.
Page 640 Line 18 to Page 641 Line 11 Discussion of midazolam's paradoxical reaction	There are estimates of the prevalence of the paradoxical reaction that range from 1% to 10% that come from studies counting sequential paradoxical reactions in specific populations. A 1% prevalence of an adverse drug reaction is not small and will mean that a large number of people will experience that reaction.

Page 645 Line 20 to Page 646 Line 22 Discussion of involuntary movements and the Saponsik study	Saponsik studied 107 brain dead patients. There are several sets of criteria for the diagnosis of brain death, all require complete unresponsiveness, permanent loss of breathing and absent brainstem reflexes; most also require the absence of sedative drugs, neuromuscular blocking agents, and low body temperature. The majority of subjects did not have spontaneous movements. Brain death is not verified in executed prisoners.
Page 647 Lines 15 – 17 Discussion of pain with midazolam injections	Midazolam's FDA-approved professional product label indicates that 5% of patients experience pain on injection.
Page 650 Line 1 to Page 651 Line 23 Discussion of ceiling effect with midazolam	Evans is confused about these studies and corrects himself. He offered no credible evidence that there is no ceiling effect with midazolam.
Page 651 Lines 24-25 & Page 652 Lines 1 – 10 Discussion of Drugs.com	Evans refers to Drugs.com as a tertiary source. This is a term that is usually used for textbooks. A more appropriate term would be information aggregator. Drugs.com uses information from commercial drug information vendors. The Drugs.com disclaimer contains the following statement: "This material is provided for educational purposes only and is not intended for medical advice, diagnosis or treatment." Sources in Drugs.com have been criticized in the literature for poor editorial policies.

CONCLUSION

My critique of Evans' report is based on over 30 years of experience teaching drug information, also referred to as clinical epidemiology, to pharmacy students in accredited colleges of pharmacy in North America and to pharmacists and other health professionals overseas. This instruction included the retrieval, critical evaluation, and objective communication of the best available evidence about drugs.

Evans' report relied mainly on the Drugs.com Web site as its major source for drug information. Drugs.com is an information aggregator that relies on

unaltered information from a number of popular commercial drug information vendors that have been criticized in the published literature, extending back to the 1970s, because of poor editorial policies resulting in information that can be incomplete and out of date or both.

The other references provided in Evans' report were a document from PubChem, a chemical information database, from the US National Center for Biotechnology Information for midazolam. Also submitted was a Material Safety Data Sheet (MSDS) for midazolam prepared by Bedford Laboratories that was last revised in July 2007. MSDSs are a requirement of the Occupational Health and Safety Administration for employers to prepare and make available in the workplace. Finally, he relied on a 12-year-old clinical practice guideline from the American Society of Health-System Pharmacists on sustained neuromuscular blockade in the adult critically ill patient.

Absent from Evans' report was information on midazolam's paradoxical reaction, with the exception of a document from Drugs.com that was not reflected in his written submission. Also absent from his report was any mention of evidence to refute a ceiling effect that has been cited in the published literature with midazolam.

Any extrapolation based on the information submitted that 500 mg of midazolam would render an individual unconscious and insensate to noxious stimuli is at best only speculative.

Errors in Evans' oral testimony are documented above. Taken together, the report and the oral testimony reveal a lack of scientific thoroughness and

accuracy that places in question his opinions and conclusions.

/s/ Larry D. Sasich	1/8/15
Larry D. Sasich	Date

MIDAZOLAM- midazolam hydrochloride injection
Akorn, Inc.

Midazolam Injection, USP
Rx only
CIV

WARNING

Adult and Pediatric: Intravenous midazolam has been associated with respiratory depression and respiratory arrest, especially when used for sedation in noncritical care settings. In some cases, where this was not recognized promptly and treated effectively, death or hypoxic encephalopathy has resulted. Intravenous midazolam should be used only in hospital or ambulatory care settings, including physicians' and dental offices, that provide for continuous monitoring of respiratory and cardiac function, i.e., pulse oximetry. Immediate availability of resuscitative drugs and age- and size-appropriate equipment for bag/valve/mask ventilation and intubation, and personnel trained in their use and skilled in airway management should be assured. (see WARNINGS.) For deeply sedated pediatric patients, a dedicated individual, other than the practitioner performing the procedure, should monitor the patient throughout the procedure.

The initial intravenous dose for sedation in adult patients may be as little as 1 mg, but should not exceed 2.5 mg in a normal healthy adult. Lower doses are necessary for older (over 60 years) or debilitated patients and in patients receiving concomitant narcotics or other central nervous system (CNS)

depressants. The initial dose and all subsequent doses should always be titrated slowly; administer over at least 2 minutes and allow an additional 2 or more minutes to fully evaluate the sedative effect. The use of the 1 mg/mL formulation or dilution of the 1 mg/mL or 5 mg/mL formulation is recommended to facilitate slower injection. Doses of sedative medications in pediatric patients must be calculated on a mg/kg basis, and initial doses and all subsequent doses should always be titrated slowly. The initial pediatric dose of midazolam for sedation/anxiolysis/amnesia is age, procedure, and route dependent (see DOSAGE AND ADMINISTRATION for complete dosing information).

Neonates: Midazolam should not be administered by rapid injection in the neonatal population. Severe hypotension and seizures have been reported following rapid IV administration, particularly with concomitant use of fentanyl (see DOSAGE AND ADMINISTRATION for complete information).

DESCRIPTION

Midazolam hydrochloride is a water-soluble benzodiazepine available as a sterile, nonpyrogenic parenteral dosage form for intravenous or intramuscular injection. Each mL contains midazolam hydrochloride equivalent to 1 mg or 5 mg midazolam compounded with 0.8% sodium chloride and 0.01% disodium edetate, with 1% benzyl alcohol as preservative; the pH is adjusted to 3.3 to 3.5 with hydrochloric acid and, if necessary, sodium hydroxide.

Midazolam is a white to light yellow crystalline compound, insoluble in water. The hydrochloride salt of midazolam, which is formed *in situ*, is soluble in aqueous solutions. Chemically, midazolam HCl is 8-chloro-6-(2-fluoro-phenyl)-1-methyl-4H-imidazo[1,5-

a][1,4]benzodiazepine hydrochloride. Midazolam hydrochloride has the molecular formula $C_{18}H_{13}ClFN_3 \cdot HCl$, a calculated molecular weight of 362.25 and the following structural formula:

* * * *

increase in the clearance and volume of distribution but the half-life remained unchanged. Metabolite levels were not studied.

Plasma Concentration Effect Relationship: Concentration-effect relationships (after an IV dose) have been demonstrated for a variety of pharmacodynamic measures (e.g., reaction time, eye movement, sedation) and are associated with extensive intersubject variability. Logistic regression analysis of sedation scores and steady-state plasma concentration indicated that at plasma concentrations greater than 100 ng/mL there was at least a 50% probability that patients would be sedated, but respond to verbal commands (sedation score = 3). At 200 ng/mL there was at least a 50% probability that patients would be asleep, but respond to glabellar tap (sedation score = 4).

Drug Interactions: For information concerning pharmacokinetic drug interactions with midazolam, see PRECAUTIONS.

INDICATIONS AND USAGE:

Midazolam injection is indicated:

- intramuscularly or intravenously for preoperative sedation/anxiolysis/amnesia;
- intravenously as an agent for sedation/anxiolysis/amnesia prior to or during diagnostic, therapeutic or endoscopic procedures, such as bronchoscopy, gastroscopy, cystoscopy, coronary

angiography, cardiac catheterization, oncology procedures, radiologic procedures, suture of lacerations and other procedures either alone or in combination with other CNS depressants;

- intravenously for induction of general anesthesia, before administration of other anesthetic agents. With the use of narcotic premedication, induction of anesthesia can be attained within a relatively narrow dose range and in a short period of time. Intravenous midazolam can also be used as a component of intravenous supplementation of nitrous oxide and oxygen (balanced anesthesia);
- continuous intravenous infusion for sedation of intubated and mechanically ventilated patients as a component of anesthesia or during treatment in a critical care setting.

Midazolam is associated with a high incidence of partial or complete impairment of recall for the next several hours (see CLINICAL PHARMACOLOGY).

CONTRAINDICATIONS:

Injectable midazolam is contraindicated in patients with a known hypersensitivity to the drug. Benzodiazepines are contraindicated in patients with acute narrow-angle glaucoma. Benzodiazepines may be used in patients with open-angle glaucoma only if they are receiving appropriate therapy. Measurements of intraocular pressure in patients without eye disease show a moderate lowering following induction with midazolam; patients with glaucoma have not been studied.

Midazolam is not intended for intrathecal or epidural administration due to the presence of the preservative benzyl alcohol in the dosage form.

WARNINGS:

Midazolam must never be used without individualization of dosage particularly when used with other medications capable of producing central nervous system depression. Prior to the intravenous administration of midazolam in any dose, the immediate availability of oxygen, resuscitative drugs, age-and size-appropriate equipment for bag/valve/mask ventilation and intubation, and skilled personnel for the maintenance of a patent airway and support of ventilation should be ensured. Patients should be continuously monitored with some means of detection for early signs of hypoventilation, airway obstruction, or apnea, i.e., pulse oximetry. Hypoventilation, airway obstruction, and apnea can lead to hypoxia and/or cardiac arrest unless effective countermeasures are taken immediately. The immediate availability of specific reversal agents (flumazenil) is highly recommended. Vital signs should continue to be monitored during the recovery period. Because intravenous midazolam depresses respiration (see CLINICAL PHARMACOLOGY) and because opioid agonists and other sedatives can add to this depression, midazolam should be administered as an induction agent only by a person trained in general anesthesia and should be used for sedation/anxiolysis/amnesia only in the presence of personnel skilled in early detection of hypoventilation, maintaining a patent airway and supporting ventilation. When used for sedation/anxiolysis /amnesia, midazolam should always be titrated slowly in adult or pediatric patients. Adverse hemodynamic events have been reported in pediatric patients with cardiovascular instability; rapid intravenous administration should also be avoided in this

population. See DOSAGE AND ADMINISTRATION for complete information.

Serious cardiorespiratory adverse events have occurred after administration of midazolam. These have included respiratory depression, airway obstruction, oxygen desaturation, apnea, respiratory arrest and/or cardiac arrest, sometimes resulting in death or permanent neurologic injury. There have also been rare reports of hypotensive episodes requiring treatment during or after diagnostic or surgical manipulations particularly in adult or pediatric patients with hemodynamic instability. Hypotension occurred more frequently in the sedation studies in patients premedicated with a narcotic.

Reactions such as agitation, involuntary movements (including tonic/clonic movements and muscle tremor), hyperactivity and combativeness have been reported in both adult and pediatric patients. These reactions may be due to inadequate or excessive dosing or improper administration of midazolam; however, consideration should be given to the possibility of cerebral hypoxia or true paradoxical reactions. Should such reactions occur, the response to each dose of midazolam and all other drugs, including local anesthetics, should be evaluated before proceeding. Reversal of such responses with flumazenil has been reported in pediatric patients. Concomitant use of barbiturates, alcohol or other central nervous system depressants may increase the risk of hypoventilation, airway obstruction, desaturation, or apnea and may contribute to profound and/or prolonged drug effect. Narcotic premedication also depresses the ventilatory response to carbon dioxide stimulation.

Higher risk adult and pediatric surgical patients, elderly patients and debilitated adult and pediatric

patients require lower dosages, whether or not concomitant sedating medications have been administered. Adult or pediatric patients with COPD are unusually sensitive to the respiratory depressant effect of midazolam. Pediatric and adult patients undergoing procedures involving the upper airway such as upper endoscopy or dental care, are particularly vulnerable to episodes of desaturation and hypoventilation due to partial airway obstruction. Adult and pediatric patients with chronic renal failure and patients with congestive heart failure eliminate midazolam more slowly (see CLINICAL PHARMACOLOGY). Because elderly patients frequently have inefficient function of one or more organ systems and because dosage requirements have been shown to decrease with age, reduced initial dosage of midazolam is recommended, and the possibility of profound and/or prolonged effect should be considered.

Injectable midazolam should not be administered to adult or pediatric patients in shock or coma, or in acute alcohol intoxication with depression of vital signs. Particular care should be exercised in the use of intravenous midazolam in adult or pediatric patients with uncompensated acute illnesses, such as severe fluid or electrolyte disturbances.

There have been limited reports of intra-arterial injection of midazolam. Adverse events have included local reactions, as well as isolated reports of seizure activity in which no clear causal relationship was established. Precautions against unintended intra-arterial injection should be taken. Extravasation should also be avoided.

The safety and efficacy of midazolam following nonintravenous and nonintramuscular routes of admin-

istration have not been established. Midazolam should only be administered intramuscularly or intravenously.

The decision as to when patients who have received injectable midazolam, particularly on an outpatient basis, may again engage in activities requiring complete mental alertness, operate hazardous machinery

December 2, 2014

Mr. John D. Hadden
Assistant Attorney General
Litigation Division Office of the Attorney General
313 North East 21st Street
Oklahoma City, OK 73105

Re: Charles F. Warner, et al, v. Gross, et al,
No CIV-14-665F

Dear Mr. Hadden:

I have been requested to address the pharmacological effects of the drugs used in the execution protocol for the State of Oklahoma. The following outlines the classification of the drugs in the protocol, their mechanisms of action, dosing in therapeutic use and the consequences of toxic doses as outlined in AttachmentAttachment D[1], Charts A-D.

1) Midazolam

Midazolam is a short acting benzodiazepine which is use as a pre-anesthetic agent for routine medical procedures to allay patient apprehension, create amnesia, and anesthesia induction. It produces different levels of central nervous system (CNS) depression through binding to gamma-aminobutyric acid (GABA) receptors. It is available in an injectable dosage form. Once the drug is administered the onset of action is 1.5-5 minutes. It is widely distributed after administration and

[1] Attachment D in this report refers generally to the attachment to the Oklahoma Department of Corrections execution protocol identified as OP-040301 with an effective date of 9/30/2014 that identifies specifics regarding the preparation and administration of chemicals for use in the execution of offenders sentenced to death.

crosses the blood brain barrier. Maximum effects are seen in 20-60 minutes with recovery occurring in 2-6 hours. Serious adverse events include cardiac arrest, agitation, apnea and respiratory depression/arrest. The drug can result in depression of the spinal reflexes and reticular activating system leading to coma and respiratory arrest. The drug will potentiate the effect of other central nervous system depressants, such as ethanol, opioids and sedative hypnotics. When given together with opioids, the dose of both drugs can be reduced. The therapeutic dose as a pre-anesthetic for adults is 1.5 – 3.5 mg for a 70kg adult less than sixty years old with a maximum recommended dose of 5mg intravenously. The maximum daily dose should not exceed 10mg. When the drug is used for induction of anesthesia no more the 40 mg. should be used. Fatalities have occurred from midazolam in doses ranging from 0.04 to 0.07mg/kg. (2.8 – 4.9mg/70Kg adult)

The dose indicated in Charts C & D of Attachment D of the State of Oklahoma's execution protocol is 500 mg IV. This dose is at least 100 times the normal therapeutic dose. When the drug is administered rapidly in this large dose it will lead to toxicity resulting in CNS depression, respiratory and cardiac arrest. Midazolam is not an analgesic however the dose administered per Chart B will render the person unconscious and "insensate" during the remainder of the procedure. The lowest dose resulting in human deaths according the manufacturer's "material Safety Data Sheet" is .071 mg/kg, intravenously. Over 80 deaths from the use of midazolam had occurred as of 2009.

2) Pentobarbital

Chart A of Attachment D calls for the use of pentobarbital. This drug is a short-acting oral or parenteral barbiturate having sedative-hypnotic and anticonvulsant properties. In general, the drug has a nonselective depressant effect throughout the central nervous system due to a decrease in both pre- and postsynaptic excitability. The sedative-hypnotic effects of pentobarbital are related to its inhibition of ascending conduction in the reticular formation, which controls central nervous system arousal. The inhibition depresses the sensory cortex: decreases motor activity; alters cerebral function; and increases the threshold for electrical stimulation, which contributes to its anticonvulsant properties. It has been suggested that the sedative-hypnotic and anticonvulsant effects of barbiturates may be due to their ability to mimic the inhibitory synaptic action of gamma-aminobutyric acid.

Historically, the drug was used to induce a coma characterized by absent brainstem reflexes and suppression of the EEG for patients with status epilepticus, acute eclampsia or poisoning. In order to use the drug this way, patients had to be mechanically ventilated first and a loading dose of 10-15 mg/kg IV for 1 hour with the maximum loading dose of 30mg/kg would be used. The onset of action of pentobarbital is about 1 minute following intravenous dosage. Therapeutically the drug should not be administered at rate higher than 50 mg/minute with at total dose 200-500mg. Chart A calls for 5,000 mg to be administered in an IV bolus (as rapidly as possible).

Adverse Drug Reactions (selected): Apnea, respiratory depression, hypoventilation, bronchospasm, hypotension, sinus tachycardia, syncope and vasodilatation leading to cardio-pulmonary collapse may occur with rapid intravenous (IV) administration of pentobarbital.

When the drug is administered in accordance with Chart A it will lead to toxicity resulting in cardiopulmonary collapse.

3) Sodium Thiopental (Pentothal®)

Chart B of Attachment D of the State of Oklahoma's execution protocol calls for the use of sodium thiopental. Thiopental is used to induce general anesthesia prior to administration of other anesthetic agents or as the sole anesthetic agent for short surgical procedures. It is a barbiturate which had dose related hypnotic effects ranging from light sleep to unconsciousness and anterograde amnesia but no analgesia. Thiopental works by enhancing GABA activity by altering inhibitory synaptic transmissions mediated by $GABA_A$. Onset of activity occurs in 10-40 seconds with maximal effects occurring in about one minute. The duration of action is 5-8 minutes after a single dose. This can be extended with continuous IV administration. Doses required to induce and maintain anesthesia are 50-75mg (2-3 m Lof a 2.5% solution) administered every 20-40 seconds with additional drug administered should the patient's anesthesia lighten. Alternatively, anesthesia could be rapidly inducted with a bolus dose of 210-280 mg (3-4 mg/kg) given in 2-4 divided doses in an average 70 kg adult.

Thiopental could induce respiratory depression leading to decreased ventilator response to carbon dioxide. Myocardial depression could occur resulting in arrhythmias, increased heart rate, circulatory depression and death. Oklahoma's execution protocol Attachment D Chart B calls for 5 grams to be injected all at once which is over 20 times the dose for rapid induction which is given in divided doses. At this dose and rate of injection cardiopulmonary arrest will occur.

4) Hydromorphone

Chart C of Oklahoma's execution protocol calls for the use of Hydromorphone Hydrochloride (Dilaudid®). The drug is an opioid agonist. It is a semisynthetic analog of morphine used to relieve severe pain in in cancer, surgery, trauma, burn, and cardiac patients. Fatal cases of respiratory arrest have occurred even when the drug was used as recommended and not misused or abused. The FDA has required a "black box warning" concerning the dangers of the drug regarding fatalities secondary to the drug's use to be included in the manufacturer's package insert.

It is a potent mu (OP3) receptor agonist. Mu receptors couple with G-protein receptors and function as modulators, both positive and negative, of synaptic transmission via G-proteins that activate effector proteins. Analgesia is mediated through changes in the perception of pain at the spinal cord and in the central nervous system. Opioids close N-type voltage-operated calcium channels and open calcium dependent inwardly rectifying potassium channels resulting in hyperpolarization and reducing neuronal excitability. Opiates do not alter afferent nerve

stimulation secondary to noxious stimuli. They do however blunt the emotional response to pain.

Clinically, stimulation of mu receptors produces analgesia, respiratory depression, miosis, decreased gastrointestinal motility, and physical dependence. Respiratory depression is caused by direct action on the respiratory centers of in the brain stem. A reduction in the responsiveness of the brain stem to carbon dioxide and electrical stimulation occurs.

Since the respiratory center is severely depressed at high doses of hydromorphone, it does not respond to increasing levels of carbon dioxide and therefore, there is no urge to breathe (no "air hunger").

In clinical use, 0.2 to 1 mg IV may be administered over at least 2-3 minutes every 2-3 hours as needed for pain. In the opiate naïve patient, the dose is initiated at the lowest possible amount and titrated upwards to obtain pain control. With appropriate titration there is no maximum dose. Duration of action is 4-5 hours.

Intravenous administration drug distribution has two half-lives with the initial half-life being 1.27 minutes followed by 14.7 minutes. The first half-life is the time to reach equilibrium in the plasma and the second half represents the distribution to other tissues.

Drug elimination is through hepatic and renal mechanism; therefore the dose would be reduced for patients with diminished hepatic or kidney function. The primary metabolite of hydromorphone is hydromorphone-3-glucuronide which has

35-40 times greater exposure than parent compound. The time it takes to eliminate half of an administered dose is 2.3 hours.

These properties indicate that the drug has a very quick onset of action with its peak pharmacological effect occurring within 15 minutes. The majority of the drugs effect is seen quickly after administration via the intravenous route.

At therapeutic doses, cardiovascular adverse effects include: sinus bradycardia (<2%), sinus tachycardia (<2%), palpitations (<2%), hypertension, hypotension, orthostatic hypotension, faintness, flushing, extrasystoles (<2%), and syncope. In cases of severe respiratory and/or circulatory depression, shock and cardiac arrest may occur.

An overdose causes respiratory depression, extreme somnolence, stupor or coma, skeletal muscle flaccidity, cold and clammy skin, bradycardia, hypotension apnea, circulatory collapse, cardiac arrest and death.

Chart C of Oklahoma's execution protocol calls for 500mg of hydromorphone (500 times the IV dose) administered IV in a bolus. This dose and speed of administration in combination with the hydromorphone administered will lead to cardiopulmonary collapse.

5) Paralytic Agents

Chart D of Oklahoma's execution protocol calls for the use of a paralytic such as vecuronium bromide, pancuronium bromide or rocuronium bromide. These agents are neuro muscular blocking agents that are clinically used to as adjuncts to general anesthesia providing skeletal muscle

relaxation during surgery or mechanical ventilation. They work by binding to acetylcholine receptors but do not activate them. All three of these paralytics have the same mechanism of action and may be used interchangeably taking into differences in dosing, length of action and some differences in side effects.

Drug	Dose	Onset	Duration	Recovery	Vagal Block
Pancuronium	0.05 mg/kg	2-3 min	90-100 min	120-180 min	Modest to marked
Vecuronium	0.05mg/kg	1-1.5 min	35-45 min	45-60 min	No
Rocuronium	0.3 mg/kg	2 min	30 min	20-30 min	Some at higher doses

The typical initial dose of vecuronium bromide for a 70 Kg individual to achieve skeletal muscle relaxation would range from 5.6to 7 mg in adults. Chart D of Oklahoma's execution protocol calls for 100 mg of vecuronium bromide or equivalent dose of either of the other agents. This dose is approximately 20 times the normal dose in skeletal muscle relaxation and will achieve the desired effect at a very high confidence level.

6) Potassium Chloride Injection

Potassium is the major cation of body cells (160 mEq/liter of intracellular water) and is concerned with the maintenance of body fluid composition and electrolyte balance. Potassium participates in carbohydrate utilization, protein synthesis, and is critical in the regulation of nerve conduction and muscle contraction, particularly in the heart.

Recommended administration rates should not usually exceed 10 mEq/hour or 200 mEq for a 24 hour period if the serum potassium level is greater than 2.5 mEq/liter.

The signs and symptoms of intoxication include, paresthesia of the extremities, are flexia, muscular or respiratory paralysis, mental confusion, weakness, hypotension, cardiac arrhythmia, heart block, electrographic abnormalities and cardiac arrest.

Reactions which may occur because of the solution or the technique of administration include febrile response, infection at the site of injection, venous thrombosis or phlebitis extending from the site of injection, extravasation and hypervolemia.

Chart D calls for 240 mEq of potassium chloride to be administered intravenously as rapidly as possible. The dose is 24 times that is recommended over a one hour period. This dose will induce a cardiac arrest.

7) Involuntary Movements

Some involuntary motor movements may be observed during normal anesthesia and have been observed during execution by injection. It is also postulated that when the brain is deprived of oxygen, movements are a result of hypoxemia. "Most of the movements described in brain-dead patients are considered spinal reflexes. The pathophysiologic basis of these reflexes is not known. However, hypoxic stimulation of neurons in the cervical spinal cord, isolated from the control of rostral areas, can elicit spinal reflexes. This hypothesis is supported by the appearance of spinal movements after a ventilator is turned off or during apnea testing. Other triggering factors—such as mechanical or painful stimuli, hypotension, and acidosis—have also been associated with spinal reflexes. Movements with

muscular origin, such as eye opening or facial myokymia, have also been described." (Saposnik, G. Spontaneous and reflex movements in 107 patients with brain death. The American Journal of Medicine (2005) 118, 311-314).

8) Can the subject feel pain?

Excluding potassium chloride, none of the drugs in question causes pain upon injection. When high dose pentobarbital, thiopental, hydromorphone or midazolam are used in the amounts specified in Attachment D, the subject quickly reaches an unconscious and unresponsive state and would not react to painful stimuli. As specified in Attachment D, a consciousness check is conducted after 5 minutes have elapsed following the administration of the first chemical. Even so, the proper administration of of 500 mg of midazolam as specified in Chart D, make it a virtual certainty that any individual will be at a sufficient level of unconsciousness to resist the noxious stimuli which could occur from application of the 2nd and 3rd drugs in that Chart.

7) Benzyl Alcohol

The addition of benzyl alcohol to pharmaceutical preparations is for its bacteriostatic properties. In midazolam solution for injection, there is 1% benzyl alcohol. By volume the amount of benzyl alcohol would be 1 ml contained in 100m1 of midazolam for injection. Most complications reported with benzyl alcohol have been in premature infants and a few cases in adults who have serious medical conditions. A 4.5 mg/kg dose is considered safe for health adults.

Respectfully Submitted,

/s/ R. Lee Evans
R. Lee Evans, Pharm.D.,
FASHP, FCCP, BCPP
Dean and Professor

Selected References:

WWW.Drugs.Com (for health professionals) for Thiopental. Pentobarbital, Hydromorphone, Potassium Chloride, Midazolam, Vecuronium Bromide, Pancuronium Bromide or Rocuronium Bromide

Material Safety Data Sheet for Midazolam Injection, Bedford Laboratories, 2007.

Clinical Practice Guidelines for Sustained Neuromuscular Blockade in the Adult Critically Ill Patient. ASHP Therapeutic Guidelines. American Society of Health System Pharmacists, 2001

Final Report on the Safety Assessment of Benzyl Alcohol, Benzoic Acid, and Sodium Benzoate. International Journal of Toxicology 2001:20;23.

Benzyl Alcohol. PubChem.ncbi.nlm.gov, compound/benzyl_alcohol.

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF OKLAHOMA

Case No. CIV-14-665-F

CHARLES F. WARNER, ET AL.,

Plaintiffs,

vs.

KEVIN J. GROSS, ET AL.,

Defendants.

TRANSCRIPT OF PRELIMINARY INJUNCTION HEARING BEFORE THE HONORABLE STEPHEN P. FRIOT UNITED STATES DISTRICT JUDGE
DECEMBER 17, 18 AND 19, 2014
9:00 A.M.

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* * * *

[629] Honor.

THE COURT: Okay. You may proceed.

And as soon as anybody—I'm going to go closer to 3:00, unless somebody requests a recess before 3:00. And if that request is made, that's what we'll do.

ROSWELL LEE EVANS,

(WITNESS SWORN.)

DIRECT EXAMINATION

BY MR. HADDEN:

Q. Good afternoon, Doctor.

A. Hi.

Q. Doctor, if you would, briefly just go over your—some of your highlights of your CV. The judge has already indicated he's read it, so we don't need everything. But just give the highlights so we can—

THE COURT: For the record, let's have his full name.

THE WITNESS: My full name is Roswell Lee Evans, Jr.

THE COURT REPORTER: Could you spell your first name, please.

THE WITNESS: Evans, E-V-A-N-S.

THE COURT REPORTER: First name?

THE WITNESS: Roswell, R-O-S-W-E-L-L.

Q. (BY MR. HADDEN) And if you would, just briefly go over your CV, Doctor.

A. Okay. I have a pharmacy degree at a bachelor's level.

[630] Q. Okay. I'm sorry. Just keep going.

A. Okay. A doctor of pharmacy degree from the University of Tennessee, a residency from the Medical University of South Carolina. I joined the faculty at UT, University of Tennessee Health Sciences, began a specialty in psychiatry. Left UT, went to the University of Missouri, Kansas City, as a member of the Department of Psychiatry and the School of Pharmacy. Eventually developed a post-graduate residency and fellowship training and research program. Became department head. Subsequently left

and went to Auburn as the Dean of the School of Pharmacy.

Q. And is that where you are currently employed?

A. I am currently there, yes.

Q. Doctor, as part of your training and experience, are you limited to the normal range of research and activities that most PharmDs are?

A. Yes.

Q. Do you also do additional things beyond what a normal PharmD might do?

A. I'm a board-certified psychiatric pharmacist, so I have certainly been involved in activities that were a little bit more progressive than most practitioners. That's changing today, however.

Q. Okay. Have you been present during medical procedures from time to time where drugs were being introduced?

[631] A. Yes.

Q. Have you been present during some where there was induction of anesthesia?

A. Yes. But that was typically—not something that was very common for me. I've probably experienced more of that personally than I've seen.

Q. Okay. And if you would, Doctor, let's go ahead and turn to your report, which is—

A. I have a copy.

Q. —Plaintiffs' 34. Do you have it there, Doctor, in front of you?

A. Yes.

Q. Okay.

MR. HADDEN: It's Defendants' 34, Your Honor, if you have a copy. Actually, we also gave you one like this. I don't know which one you have.

Q. (BY MR. HADDEN) All right. Okay, Doctor, if you would, just briefly describe for the Court from your report what midazolam is.

A. Midazolam is a short-acting benzodiazepine. The drug is primarily used as a drug to induce anesthesia, to actually facilitate minor procedures and decreases apprehension, also decreases memory of the event.

Q. And, Doctor, is—to your knowledge, is midazolam always used with an analgesic?

[632] A. No, not always. In clinical procedures that just require somebody to be sedated or quick procedures that are not necessarily terribly invasive, it could be used by itself. Medical procedures typically use it. I mean, even for something like a colonoscopy, you would see it used in combination with a narcotic.

Q. Okay. Are there procedures, though—if you would, describe some of the procedures where you may use midazolam without an analgesic.

A. Well, oftentimes they're used in dental procedures.

THE COURT: In what?

THE WITNESS: Dental procedures. Extractions. And in combination, even there some times with gas or other agents, but oftentimes by itself the—they're typically fairly minor medical procedures that are—where the drug is used.

Q. (BY MR. HADDEN) Okay. Doctor, in your report and in your section on midazolam, you talk

about therapeutic doses. Do you see that, about halfway down, it starts, "The therapeutic dose"?

A. Yes.

Q. If you would, just read that sentence for me, please.

A. A therapeutic dose as a preanesthetic for adults, is 1.5 to 3.5 milligrams for a 70-kilogram adult less than 60 years of age with a maximum recommended dose of 5 milligrams intravenously.

[633] Q. Doctor, what do you mean by "therapeutic dose"?

A. Well, a "therapeutic dose" is primarily a dose that's use to achieve a specific outcome, as in sedation, and/or developing amnestic properties for—to prevent people from remembering the procedure, even to the point where they don't remember things that might even be somewhat painful.

Q. Okay. So if you were going to use it for a non-therapeutic purpose, you could use a great deal more than what you have listed here, couldn't you?

A. Absolutely.

Q. Now, in that last line of that paragraph, Doctor, if you would, read that where it starts, "Fatalities."

A. "Fatalities have occurred from midazolam and doses ranging from .04 to.07 milligram per kilogram."

Q. All right. And where did you extract that information from, Doctor?

A. Actually, that came from the manufacturer's product sheet

Q. Are you aware of any studies or reports that indicate that there have been some deaths from the use of midazolam?

A. There have been at least 80 case reports of fatalities in the country from midazolam, the use of midazolam.

Q. Do you know whether those were at therapeutic doses or much higher doses?

A. No, that part is unclear. I think most of the time they were used in therapeutic doses.

[634] Q. Okay. Now, Doctor, midazolam, can it be utilized to take someone to an unconscious state?

A. Yes, it can.

Q. And if a proper IV access is obtained and there is an infusion of midazolam, could you achieve that unconscious state without the use of an analgesic?

A. Yes.

Q. And if you achieve that unconscious state, would an analgesic be necessary?

A. No.

Q. So if someone were to criticize and say that Chart D of Attachment D of the Oklahoma protocol is ineffective because it does not include an analgesic, would you agree with that?

A. No, I would not.

Q. In your opinion, Doctor, if proper IV access is obtained and 500 milligrams of midazolam is introduced intravenously, will that subject become unconscious at some point?

A. Yes.

Q. If you also couple that with a wait of five minutes and a consciousness check by a medical professional, are you assuring that they are, indeed, unconscious before proceeding?

A. Yes.

Q. Now, I'd like to direct you, then, to that next paragraph there that starts with, "The dose." If you would, just read that paragraph or—I'm sorry, not the paragraph. Just that [635] sentence.

A. "The dose indicated in Chart C and D of Attachments D of the State of Oklahoma's execution protocol is 500 milligrams IV."

Q. And go ahead, if you would, read that one next sentence.

A. "This dose is at least 100 times the normal therapeutic dose."

Q. And how did you determine it was at least 100 times over the therapeutic dose, Doctor?

A. Well, the normal therapeutic dose is anywhere up to 3-and-a-half milligrams at one time. And anywhere from 1-and-a-half to 3-and-a-half, so it's a pretty good dose.

Q. Okay. So if someone were to differ with you that it's not 100 times, could it just be that they have a different definition of precisely what a "therapeutic dose" is? A. Right.

Q. If you would look down, then, to the sentence that begins, "Midazolam is not an analgesic."

A. Right.

Q. Go ahead and read that one, if you would.

A. "Midazolam is not an analgesic, however, the dose administered per Chart B will render the person unconscious and insensate during the remainder of the procedure."

Q. Now, Doctor, I don't know if you have the copy I do, but this one says "Chart B." Does that mean Chart D?

[636] A. Did I say "D" (sic)? I need new glasses. It's Chart D.

Q. It may be a typo. I'm not sure. I just want to make sure we're on the right track.

A. I think it's a typo.

Q. Okay. So as we're talking about there, do you stand by that statement?

A. Yes.

Q. So if someone was critical and said that that is an untrue statement because there is a "ceiling effect," would you agree with that statement?

A. No.

Q. And why is that?

A. The "ceiling effect" that's been referred to is an effect specifically on the spinal cord, and there are studies to show that, you know, you can eliminate a significant portion of an inhaled anesthetic with the use of midazolam, but you can't completely eliminate it, and that's really to maintain a plane of surgical—a surgical plane, and that's all at a spinal cord level.

What we're talking about here is at the reticular activating system, the part of the brain that controls respiration, so we're basically shutting down

respiration centers. There is no ceiling effect at that level.

Q. Okay. Now, Dr. Lubarsky testified the other day about GABA receptors.

[637] THE COURT: When you say "at that level," what level are you referring to?

THE WITNESS: At that part of the brain, the higher level of brain. So the spinal cord is a lower part of the central nervous system. The brain itself, the reticular activating system is the part of the brain that controls respiration. And so this dose is essentially shutting down that system.

THE COURT: "This dose" being?

THE WITNESS: 500 milligrams of midazolam.

Q. (BY MR. HADDEN) Doctor, there's some discussion today from Dr. Lubarsky about GABA receptors. Do you know what those are?

A. GABA receptors? Yes.

Q. Could you just explain briefly, how does that—how does midazolam interact with GABA receptors?

A. Midazolam attaches to GABA receptors, inhibiting GABA. And that's generating us—that's what generates the clinical effect or the pharmacological effect from midazolam and all the other benzodiazepine drugs, as well as some other agents as well.

GABA is a—GABA receptors are found across the entire body, so there are GABA receptors on the spinal column and there's GABA receptors in the brain.

And so what we're doing—GABA, for instance, is responsible—GABA receptors are responsible for

anxiety [638] disorders. So when you basically inhibit GABA, you basically begin to control those kind of symptoms.

Q. And does anyone reliably know how many GABA receptors are even in a human body?

A. No.

Q. Can you even take a guess? I mean, are we in the millions, billions? What are we in?

A. In the millions.

Q. So Dr. Lubarsky today had a somewhat simplified but seemingly effective representation of a building with doors and people holding the doors open. Have you heard that kind of explanation before?

A. No.

Q. Okay. Well, I'm paraphrasing here, and I may have it a little bit wrong, but the way I recall it was simply that you have a number of doors and you're not going to get any more effect if a hundred people hold those doors open than if two people do as people come in. Is that effective representation at all?

A. What he's talking about is the competitive nature of substances trying to attach to GABA receptors. You know, in certain parts of the body, that may be a major issue, but we're talking about instead of three or four doors, we're talking about lots and lots of doors, so it's—it's an interesting analogy, but the numbers are quite large.

[639] Q. So if we were to use his representation and were picturing a courthouse, we should instead be picturing maybe a building the length of the United States with doors along it?

A. Or at least all the doors in the city of Oklahoma City.

Q. Okay. Now, Doctor, in terms of the effects of midazolam, you said it goes beyond just affecting the spinal column; is that true?

A. That's true.

Q. And what other parts of the central nervous system does it affect? Does it affect all of them?

A. Yes.

Q. And are there GABA receptors along the entire length of the central nervous system?

A. Yes.

Q. And does it affect all of those?

A. Yes, it does.

Q. Okay. And if you effectively—I guess I should rephrase that. If you affect enough GABA receptors along the length of that central nervous system, will you obtain a level of unconsciousness?

A. Well, yes, you will. And especially at the central nervous system—higher levels of the central nervous system, the brain itself. You're basically—in many ways, you're paralyzing the brain. It no longer functions. Especially the [640] respiratory centers.

Q. But would it also paralyze the pain centers?

A. It may not paralyze the brains—the pain centers in the brain, but the individual would (sic) be able to respond to that, would not be aware of it.

Q. So this has some amnesic qualities, I think you said earlier?

A. It does have amnestic qualities, yes.

THE COURT: You say the individual would or wouldn't be able to respond to it?

THE WITNESS: Would not be able to respond.

THE COURT: Okay.

THE WITNESS: Essentially we're achieving a state of unconsciousness very quickly.

Q. (BY MR. HADDEN) And just to be clear, you're saying they would not sense the pain?

A. Would not sense the pain, no.

Q. And, Doctor, have you heard of the paradoxical effect regarding midazolam before?

A. Yes.

Q. There was some commentary over the last few days that it's not reflected in your report anywhere. Is there a reason for that?

A. Well, I don't think it's a significant issue in this particular circumstance. The doses that we're seeing, you [641] really don't see a paradoxical effect. You do at lower doses. It's probably less than 1 percent of low dose, therapeutic dose, that you would see anyone that would have a paradoxical effect, which is a pretty low percentage for any side effect.

Q. Okay. And when you say—are there studies about the paradoxical effect, Doctor?

A. No, there are case reports. There are really no studies that I'm aware of.

Q. Okay. In these case studies, again, what are you talking about, low doses? Are we talking about low therapeutic doses?

A. Low therapeutic doses, right.

Q. So if you previously testified therapeutic doses in the—

A. One-and-a-half to 3-and-a-half.

Q. So we're talking in that 1-and-a-half milligram range?

A. Right. I should add, though, that that's also a very slow administration rate.

Q. Okay. Dr. Evans, you previously testified in the Chavez case in Florida?

A. I did.

Q. Did Dr. Lubarsky testify in that case?

A. Yes, he did.

Q. Was that protocol involving the same protocol as Method D in Oklahoma's current protocol?

A. Yes.

[642] Q. And was that ultimately found constitutional?

A. Yes.

Q. All right. Doctor, let's look back, if we could, please, at your report on page 2. You have some commentary there and some ultimate determinations on pentobarbital and on sodium thiopental. If you would, just read the last sentence under "pentobarbital," please.

A. "When the drugs administered in accordance with Chart A will lead to toxicity resulting in cardiopulmonary collapse."

Q. And is that still your opinion today, Doctor?

A. Yes.

Q. Then look down, if you would, to Section 3 and the last sentence of that one as well.

THE COURT: Wait, wait, wait.

MR. HADDEN: I'm sorry.

THE COURT: You were looking in paragraph 2 on the second page of your report; is that right?

MR. HADDEN: Yes, Your Honor. I've just asked him to read the last paragraph of the Section 2.

THE COURT: Okay. Very good. Proceed.

Q. (BY MR. HADDEN) And then, if you would, the last sentence of Section 3 as well.

A. "At this dose and rate of injection, cardio-pulmonary [643] arrest will occur."

Q. Now, those two drugs, pentobarbital and sodium thiopental, those are what class of drugs?

A. Barbiturates.

Q. Okay. Let's move on, please, to Section 5, which you talk about paralytic agents?

A. Yes.

Q. Now, Doctor, in that section, you have discussion of three different agents and a chart. And I did want to ask you first: Why did you select these three separate particular drugs?

A. Well, they're ones that are referred to in the protocol. They're non-polarizing paralytic agents. And essentially they're equivalent in terms of the way they work.

Q. So what is the difference between them, Doctor?

A. The difference tends to be duration and recovery time. For instance, on rocuronium bromide,

recovery time is much shorter, 20 to 30 minutes, in comparison to pancuronium bromide, which is recovery time at 120 to 180. That's important if you are doing surgical procedures and somebody is going into recovery.

Q. Okay. In terms of dosage, Doctor, if one was calculating a dose for someone, the items you have under "dose" is how they would calculate it?

A. Yes.

[644] Q. So as I'm looking at those, it looks like pancuronium and vecuronium, you need slightly more than you do for rocuronium;, is that correct?

A. Right.

Q. Now, when you examined Chart D of the execution protocol, do you believe that the amount specified in Chart D is sufficient to function as a paralytic?

A. Yes, it's 20 times what you actually need to get an effect.

Q. Okay. And the same for the rocuronium, would that be—

A. That's true.

Q. So if you use the same dosage in terms of milligrams, you get the same effect no matter which one you chose?

A. Yes.

Q. Looking on, Doctor, to Section 6, potassium chloride?

A. Yes.

Q. Actually, let's look at the last—the next page, the last line in that. And just—let's see, just go ahead and start there at Chart D. That may be the—

A. Chart D calls for 240 milliequivalents potassium chloride to be administered intravenously as rapidly as possible. The dose is 24 times that that is recommended over a one-hour period. This dose will induce cardiac arrest.

Q. Okay. So if the intent—

THE COURT: Excuse me just a minute. Just for the [645] record. You referred to 240 milliequivalents?

THE WITNESS: Yes.

THE COURT: That's what the "mEq" stands for?

THE WITNESS: Right.

THE COURT: Proceed.

Q. (BY MR. HADDEN) Just if you would, jut briefly, what is the expression "mEq"?

A. It's basically a measure of ion, the ion potassium itself.

Q. And is that a normal way of expressing a dosage of potassium chloride?

A. Electrolytes, yes. Normal way of expressing electrolytes.

Q. Okay. So is it your testimony that that—the dosage called for in Chart D is sufficient to cause cardiac arrest in the offender?

A. Yes.

Q. Doctor, in Item 7 you also have a section on involuntarily moments. Do you see that?

A. Yes.

Q. Have you, in fact, read some reports regarding involuntary moments?

A. Yes.

MS. KONRAD: Objection. Just for the record, restating the objection based on the motion in limine we filed.

THE COURT: Very well. That's understood. [646] Proceed.

Q. (BY MR. HADDEN) Have you read some research reports regarding involuntary movements?

A. Yes.

Q. And after reading those, what conclusions have you drawn?

A. Well, I think the primary conclusion about involuntary movements is the fact that when you begin to shut off the oxygen supply, you're going to get some involuntary movements because the body is beginning to, if you will, adjust and react to that, so I think any time there is a hypoxemia or low oxygen levels, you could begin to see involuntary movements.

So those things have been described in the literature for some time anecdotally and there's at least one study who is looking at it with—that's mentioned here and that's Saposnik study.

Q. Okay. So when we're talking about involuntary movements, we're specifically talking about someone going through a death process, as opposed to just being anesthetized for a medical procedure, correct?

A. Right.

Q. Isn't that similar to what's intended with an execution process, Doctor?

A. Yes, it is.

Q. Moving on, Doctor, for Item 8, about pain, if you would look at that, please.

[647] A. Yes.

Q. Go ahead and read that first sentence, if you would, please.

A. "Excluding potassium chloride, none of the drugs in question causes pain upon injection."

Q. Now, specifically, what are you talking about there, Doctor? Are you talking about the drug or the injection itself?

A. No, the drug itself as it's being injected, potassium chloride is a fairly caustic drug, and so when it's injected, it can cause some inflammation and pain.

Q. Okay. But in terms of the paralytic, there is not any pain associated with that?

A. There's no pain associated with the paralytic.

Q. And with the midazolam, there's not pain associated with that?

A. There's no pain associated with midazolam either.

Q. And go ahead, if you would, read that second line for us, Doctor.

A. "When high-dose pentobarbital, thiopental, hydromorphone or midazolam are used in amounts specified in Attachment D, the subject quickly reaches unconscious and unresponsive state and would not react to painful stimuli."

Q. And how did you come to that conclusion, Doctor?

A. It's essentially that you have shut down the brain [648] entirely and it's basically not responding to afferent stimuli. And so I think with that kind of dose and the achieved effect of 500 milligrams of midazolam or one of these other substances, you're really not going to see the pain piece. This is particularly in the event that—or with a procedure where you're administering a very large dose of this drug very rapidly.

Q. Go ahead, then, Doctor, if you would, read that last part, beginning at, "Even so."

A. "Even so, the proper administration of 500 milligrams of midazolam, as specified in Chart D, make it a virtual certainty that any individual will be at a sufficient level of unconsciousness to resist the noxious stimuli which could occur from the application of the second and third drugs in the chart."

Q. Okay. So to the extent there is a noxious stimuli from the second and third drugs in the chart, Doctor, in your opinion, would that be alleviated by the use of the midazolam, as specified in Chart D, a wait of five minutes and a consciousness check by a medical professional?

A. Yes. I think that would prevent the reaction, the painful stimuli.

Q. Now, Doctor, in that line that you just read about the proper administration, are you presupposing a—obtaining proper IV access?

[649] A. Yes.

Q. So if proper IV access is achieved, that statement in your opinion would be true?

A. Yes.

Q. One more thing, Doctor. In terms of paragraph 7 and 8 taken slightly together, in your opinion, based upon the studies that you have read, if you were to see involuntary movement, such as were described in this research study you cite there, is that necessarily indicative of a subject feeling pain?

A. Not necessarily, no.

Q. Doctor, there was a—

THE COURT: How much do you lack on direct?

MR. HADDEN: I'm sorry?

THE COURT: How much more do you have on direct?

MR. HADDEN: Maybe 15, 20 minutes, Your Honor. Maybe we want to go ahead and take a break for the—

THE COURT: We'll take our mid-afternoon break at this time. We'll resume at 3:30. Because of another situation, it may be slightly after 3:30, but we'll shoot for resuming at 3:30. Court will be in recess.

(RECESS HAD.)

THE COURT: Mr. Hadden, you may continue.

MR. HADDEN: Thank you, Your Honor.

[650] Q. (BY MR. HADDEN) Doctor, Dr. Sasich testified yesterday about a report that he cited in his expert report on perception of pain. Are you familiar with that report?

A. Which one was it?

Q. I'm sorry, it's footnote—

A. Four?

Q. Do you have his report somewhere there, Doctor?

A. No, I don't. Unless it's—

Q. Plaintiffs' 77. Okay. Its on the monitor there, Doctor.

A. Oh, thank you.

Q. If we can just go to page 4—no, the next one, please. Down at the bottom, Footnote 3.

A. Yes.

Q. Are you somewhat familiar with that report, Doctor?

A. Yes, I am.

Q. Okay. If you just could briefly explain what that report is about.

A. The Frolich study was a—I believe, without looking at the article itself, was a dog study in which there was a—an attempt to determine if the midazolam could substitute for inhaled anesthesia.

Q. And you said it was done on dogs?

A. Yes.

Q. Do you know where that study was done?

[651] A. If I'm remembering the study correctly.

Q. Okay. Do you know where that study was done?

A. Where it was done?

Q. Yes.

A. I think the study was actually done at University of—UAV in Alabama.

Q. Okay. And then if you look down at Footnote 4 there, are you aware of or familiar with that study, Doctor?

A. Yes.

Q. Okay.

A. That publication was a general review of benzos in the use of anesthesiology.

Q. Okay. And in your opinion, Doctor, does that—Report 4, does that support his comment there about the ceiling effect?

A. There is one sentence that mentions the ceiling effect and that actually does not support the—a ceiling effect. It refers to—eventually it refers back to an '88 article that was done looking at a ceiling effect. And I think that's the study I just cited that's not the one that the other author, Frolich, did.

Q. Okay.

A. But this one—the '88 study was a study looking at substitution of midazolam for inhaled anesthesia.

Q. Okay. Doctor, there was some criticism of drugs.com by Dr. Sasich. What's your knowledge of that source?

[652] A. Well, drugs.com is—really a tertiary resource that is a combination of materials pulled from some of the most outstanding references in the country that have been around for 50-plus years, one being the American Society—I mean, American Hospital Formulary Service, Facts & Comparisons, a number of other routine very reliable resources, and so it's—the professional version of that is pretty useful information and it really does outline—in this case, these medications have been around long enough that

most of the things that are there are things that everybody knows.

Q. Okay. Doctor, so as a source for the medications that are well-known, as you're saying, it is reliable in your opinion?

A. Yes.

Q. Doctor, just one final question for you. In your opinion, would Chart D of Attachment D of the Department of Corrections' policy that you reviewed, in your opinion, does that carry a substantial likelihood of severe pain and suffering if applied correctly?

A. Not if it's applied correctly, no.

MR. HADDEN: No further questions, Your Honor.

THE COURT: Cross-examination.

CROSS-EXAMINATION

BY MS. KONRAD:

Q. Good afternoon, Dr. Evans. I'd like to turn your attention now to the screen here.

[653] A. Yes.

Q. You just testified regarding a Footnote 3—

A. Right.

Q. —that was cited in Dr. Sasich's report. And it was a study called the Effect of Sedation on Pain Perception, and you just indicated that that was a dog study; is that correct?

A. Yes. And I corrected myself. That wasn't the dog study. I'm very familiar with—I'm familiar this article, I just didn't have the article in front of me.

Q. Okay. So this is—was a human-based study, correct?

A. Yes, it was. It was a human-based study.

Q. Is midazolam FDA-approved as a sole drug to produce and maintain anesthesia in surgical proceedings?

A. No.

Q. Can you cite any specific data or studies that support your opinion that 500 milligrams will render someone unconscious and insensate to the noxious stimuli presented by the second and third drug in the lethal-injection protocol in Oklahoma?

A. There are no studies that have been done and probably could be done administering that much medication, midazolam, to anybody. So this is essentially an extrapolation from a toxic effect. We really are not talking about a clinical effect. We're talking about inducing a toxic reaction.

Q. And what do you mean by "toxic reaction"?

[654] A. In this case, that much drug, alone, would cause a person to die as a result of respiratory arrest, so it's more than enough drug to make that happen.

Q. And in your opinion, how long would that take for somebody to die from 500 milligrams of midazolam?

A. By itself?

Q. Yes.

A. Less than an hour. More like probably 30 minutes.

Q. And what data do you have to support that?

A. The data that I have in that regard is the pharmacological impact of midazolam in the respiratory centers of the brain, which are very immediate. The drug is highly soluble and crosses the blood-brain barrier very quickly, so we would see a full effect of that drug very soon after administration intravenously.

Q. And how soon would you anticipate seeing the effects of 500 milligrams of midazolam being administered?

A. 500 milligrams, you would see an impact in three to five minutes.

Q. And whether it's administered intramuscular or IV?

A. No, IV. Much slower from an IM perspective.

Q. And I want to turn your attention to your report, which—do you have that in front of you, Dr. Evans?

A. I do. I do.

Q. You mention that fatalities have occurred from midazolam

* * * *

[658] fatal?

A. Yes.

Q. And I'd like to look, if you could, turn back to the first page of your report. The last sentence—or I'm sorry. The second to the last sentence of the last paragraph on page 1, you mention that the lowest dose resulting in human death, according to the manufacturer's Material Safety Data Sheet, is .071 milligram per kilogram. Is that accurate?

A. I'm on my second page. Read that sentence again, please, and make sure we're in the same place.

Q. Uh-huh. It's the second to the last sentence on the first page of your report that says, "The lowest dose resulting in human deaths, according to the manufacturer's Material Safety Data Sheet," which we were just looking at, "is .071 milligram per kilogram intravenously."

A. Oh, I see. You and I are on different pages.

Q. And it's on the screen in front of you.

A. Thank you.

Q. Uh-huh.

A. Now, your question was: Is this correct?

Q. Based on the Material Safety Data Sheet that we were just looking at.

A. Yeah, should be, yes.

Q. And if the material data sheet that we just looked at on [659] page 4 says this toxic dose, which you indicate represents death, is 71 milligrams per kilogram, is your report incorrect?

A. Yes, it is wrong, according to that, because it does reference that Material Safety Data Sheet. It should be 71 milligrams.

Q. So in the earlier sentence that we were talking about, where you said fatalities have occurred from midazolam in doses ranging from .04 to .07 milligrams per kilogram, is that accurate?

A. Yes.

Q. And what are you basing that opinion on?

A. That is coming from—that is coming from some of the resources that are—that's available in drugs.com.

Q. So I thought you had just told me that you had—you had indicated that the fatalities that have occurred from midazolam came from the Material Safety Data Sheet. Now you're saying they come from drugs.com.

So I'm just trying to be clear about your opinion, because this is a contested opinion, Dr. Evans.

A. Sure.

Q. So I want to make sure that we're getting the correct data.

A. There—there is—there is an inconsistency with the range of .04 to .07 milligram per kilogram with the materials data sheet, and so to be honest with you, I'd have to look at [660] those sources to indicate where that came from, but that was pulled right out of the literature.

Q. Okay. And you said you relied on drugs.com, did you not?

A. Yes.

Q. And—

A. To a large extent, yeah.

Q. There is—attached to your report was a drugs.com printout on midazolam hydrochloride. Was that where you would have gotten that data from?

A. It might have been, yes.

Q. And if you could, you have that exhibit in front of you, and the midazolam printout starts on Bates

Number 6518. If you could please point to me where you got that data from.

A. 6518. This is a long document.

Okay. My quick glance, this is not—may not be the source where this came from.

Q. Okay. What is the source that you are citing that in a 70-kilogram adult, fatalities have occurred from midazolam in doses ranging 2.8 to 4.9 milligrams?

A. Off the top of my head, I can't—I don't recall what that source was.

Q. You say earlier in your report that the therapeutic dose as a preanesthetic for adults is 1.5 to 3.5 milligrams for a 70-kilogram adult less than 60 years old?

A. Right.

* * * *

[663] short-acting drug, so adding something like a narcotic will smooth that piece out.

Q. And you said midazolam is a short-acting drug, and I think you mentioned three to five minutes. Did you consult with anyone in Oklahoma before Mr. Lockett's execution regarding the administration of midazolam?

A. No.

Q. You mentioned the ceiling effect. Is it your opinion that there is no ceiling effect with midazolam?

A. That's not what I said. I said there is not a ceiling effect from effects of the drug centrally to the orders of—higher parts of the brain. On the spinal column, there is.

Q. And what does that mean, that there is not a ceiling effect on the higher parts of the brain?

A. Well, it means that the—as you increase the dose of midazolam, it's a linear effect, so you're going to continue to get an impact from higher doses of the drug.

Q. And is it always a linear impact or is there ever an S curve with midazolam?

A. Could be, because the drug is distributed very quickly within the body, but when you're administering a very large volume of this drug, you're going to get a real big spike in the concentration of blood centrally.

Q. And so do you know whether there is, in fact, a ceiling effect with midazolam?

* * * *

[674] I would like to know what you're basing your opinion on that someone would not react to painful stimuli?

A. Well, if we have induced a state of coma or unconsciousness, it's very much unlikely that anyone is going to react to any painful stimuli, by definition.

Q. Now, as a pharmacist, has a physician ever written an inappropriate drug order?

A. Well, sure.

Q. And if you got an inappropriate drug order from a physician, what would you do?

A. I'd interact with the physician to correct it.

Q. If a physician in a hospital wanted to use midazolam that you knew she was going to use as the

sole anesthetic agent in a painful procedure, what would you do?

A. Well, if it was my service, I would probably advise them not to do that because it's not typical right now. It's not normal practice to do that.

Q. Only because it's not normal, there's no other reason to not use midazolam to induce unconsciousness for purposes of a painful procedure?

A. I would—I think the standard of practice at this juncture would be that a combination would be utilized.

Q. Would you have a painful procedure with only midazolam as the agent to render you unconscious?

A. Would I?

* * * *

[678] RECROSS-EXAMINATION

BY MS. KONRAD:

Q. Have you ever observed an execution in Florida?

A. I have not.

Q. And in Florida, do they give a large dose of a paralytic after injecting the midazolam?

A. Yes.

Q. So if somebody were rendered conscious, they would not be able to move from the paralytic; is that correct?

A. That's true.

MS. KONRAD: No further questions.

THE COURT: You may step down.

MR. HADDEN: Your Honor, I just have one question.

THE COURT: We'll have one more round, then.

REDIRECT EXAMINATION

BY MR. HADDEN:

Q. Dr. Evans, my only question is: In Florida, you are aware they do have a consciousness check before they introduce the paralytic, correct?

A. Yes.

MR. HADDEN: Thank you, Your Honor.

THE COURT: Any re-recross?

MS. KONRAD: No, Your Honor.

THE COURT: You may step down.

THE WITNESS: Thank you.

[679] THE COURT: Do the defendants have any more testimony to present?

MR. HADDEN: Nothing further, Your Honor.

THE COURT: Very well. Anything further from the plaintiffs?

MS. GHEZZI: Your Honor, we would like to have a brief—we would like to have brief closing arguments and maybe a quick break before that, if that's possible.

THE COURT: That's perfectly agreeable. We'll take a 15-minute break and we'll resume at 20 minutes till 5:00. And I would ask you to plan on something in the neighborhood of 15 to 20 minutes apiece. I'm not going to put people under rigid time limits, but please plan on 15 to 20 minutes apiece for your closing arguments.

MS. GHEZZI: Would you have any problem with the plaintiffs breaking their time up initially and then as a—essentially a rebuttal?

THE COURT: That's just fine. Very well. Court will be in recess.

(RECESS HAD.)

THE COURT: We're resuming now with closing arguments in Warner v. Gross. Plaintiffs may proceed.

MR. BAUMAN: Your Honor, I'd like to make just a couple of minutes' worth of comments about the Baze v. Rees

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF OKLAHOMA

Case No. CIV-14-665-F

CHARLES F. WARNER, ET AL.,

Plaintiffs,

vs.

KEVIN J. GROSS, ET AL.,

Defendants.

TRANSCRIPT OF PRELIMINARY INJUNCTION HEARING BEFORE THE HONORABLE STEPHEN P. FRIOT UNITED STATES DISTRICT JUDGE
DECEMBER 17, 18 AND 19, 2014
9:00 A.M.

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[555] THE COURT: You may step down.

THE WITNESS: Thank you, Your Honor.

THE COURT: Let's see, we're still in plaintiffs' case. Sometimes the sequence of witnesses we've had, it's easy to lose track of that. We're still in plaintiffs' case. Do plaintiffs have any further witnesses?

MS. KONRAD: Just one, Your Honor.

THE COURT: Very well.

MS. KONRAD: Plaintiffs call Dr. Eric Katz.

THE COURT: Very well.

ERIC KATZ,

(WITNESS SWORN.)

DIRECT EXAMINATION

BY MS. KONRAD:

Q. Good morning, Dr. Katz.

A. Good morning.

Q. Please state and spell your name for the record.

A. Eric Katz, E-R-I-C, K-A-T-Z.

Q. And, Dr. Katz, what is your profession?

A. I am an emergency physician.

Q. And how long have you been an emergency physician?

A. I finished my training in 2000 and I have been practicing emergency medicine since.

Q. And I don't want to go over your entire CV, because the Court already has a copy of it, but I would like you to just [556] give a little bit of background of what you do and what your training entails and what you're doing on a regular basis in your profession.

A. Briefly, I trained in both emergency medicine and internal medicine and became board certified in them shortly after graduating residency.

Since residency, I've been an academic emergency physician and internal medicine physician. I have most recently been the residency director for an emergency medicine residency program.

Currently, I'm the Chairman of Emergency Medicine at Maricopa Medical Center and the University of Arizona College of Medicine in Phoenix.

Q. And what do you do when you're in your residency programs? What do you do in training the students, the residents?

A. All aspects of teaching someone to go from graduating medical school until they are an independent licensed practitioner or emergency medicine.

Q. And does that entail placement of catheters?

A. Yes, it does.

Q. And how often do you do that? How often are you teaching people how to place catheters?

A. We teach courses on it throughout the year. We take every first-year resident and put them through a course on it. We

* * * *

[587] A. Yes.

Q. Does that make sense?

A. I've seen flumazenil have the intended effect.

Q. And have you used any of these drugs with —to reverse the effects of the large doses used in the lethal-injection protocol in Oklahoma?

A. Well, I really don't know what I've seen in the emergency department just simply because I don't know the total amount of drug that's been absorbed into a patient all the time.

Q. Okay. You've reviewed the documentation regarding the execution of Clayton Lockett, including the DPS executive summary, doctor, paramedic accounts and some witness accounts, correct?

A. Yes.

Q. Do you have an opinion whether Mr. Lockett regained consciousness after the doctor determined that Mr. Lockett was unconscious at the seven-minute mark and after he had been administered the 100 milligrams of midazolam?

A. Yes, I do.

Q. And what is your opinion?

A. My opinion is that he was regaining consciousness.

Q. And what is that opinion based on?

A. A few things. The first is that the descriptions that I've seen have included discussion of leg movement followed by the torso moving. And with the exception of the initial report [588] that I saw about the legs, it appeared that both sides of the body were moving.

If this was a seizure or some sort of involuntary activity like that, he would not have been able to speak. And from what I can tell, there are numerous people who said that he either spoke or was trying to form words and speak. If someone is having a seizure, by definition, they can't speak.

I'm sorry, let me clarify that. If someone is having a generalized seizure, which is what it would take to have both sides of the body involved, they would not be able to speak.

Q. And so you also read reports and heard that he was straining against the straps, and I think you listened to Director Patton say that, and Director Patton also said he said the word "man." Are these movements that would be consistent with somebody who was unconscious?

A. No; speaking would not be.

MS. KONRAD: I have no further questions.

THE COURT: Cross-examination.

CROSS-EXAMINATION

BY MR. HADDEN:

Q. All right. Dr. Katz, one of the first things that you testified about was about IV access and attempts to gain IV access. You recall a lot of that testimony, don't you?

A. Yes, sir.

Q. Okay. There was a finding in the DPS executive summary

* * * *

[REDIRECT]

[599] paramedic to be —who were in Mr. Lockett's execution to be used again under those qualifications?

A. Yes, I believe they would.

Q. Based on what you read about their qualifications and the interviews they gave with the DPS?

A. Yes.

Q. And you were also asked the question about, if one is rendered unconscious, will that prevent them from feeling noxious stimuli. Do you remember that question?

A. Yes.

Q. And have you ever used midazolam to render someone unconscious to undergo a surgical procedure?

A. Yes.

Q. And have you used midazolam as a sole agent to render somebody unconscious to undergo a surgical procedure?

A. No, I have not.

Q. And why is that?

A. Because there's no analgesic effect from it, so they would still be feeling the pain from it.

Q. And you were asked about the paralytic vecuronium and whether that would be a noxious stimuli. Do you remember that?

A. Yes, I do.

Q. If one were given the dose that is called for in the Oklahoma lethal-injection protocol of 100 milligrams and they were aware of that, what would the effect be of that?

[600] A. They would be chemically paralyzed and the expression that's sometimes been used for that situation is "locked in," where they're fully awake, they can't move, they can't blink, they can't move on their own.

Q. So if they're not breathing, what would they be feeling?

A. Extreme anxiety, suffocation.

Q. So they would be aware and suffocating because they've been unable to breathe?

A. Correct.

Q. And if somebody was not sufficiently rendered unconscious, but they were paralyzed and not able to breathe, would they be able to feel that?

A. Yes, they would.

Q. And we—Mr. Hadden also asked you about use of ultrasound and the level of training. Can somebody hold an ultrasound for somebody else when they're using it?

A. It can be done, yes.

Q. Is that the general practice when you're using an ultrasound to —for a procedure to set a line, would you hold it yourself or have somebody else hold it for you?

A. It is far preferable to hold it yourself, because you have a very narrow window of view from the ultrasound. The ultrasound window is a 2-millimeter slice, and you have to have your needle within that 2-millimeter slice in order to view it. So having someone else hold it takes away your two-handed

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9:00 A.M.

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[39] anything—any action here. And so I'm going to be back here in about five minutes. And court will be in recess.

(RECESS HAD.)

THE COURT: We'll have the plaintiffs' next witness and it is a witness by video.

COURTROOM DEPUTY: Dr. Cohen, can you please raise your right hand to be sworn.

THE WITNESS: Yes.

JOSEPH COHEN,

(WITNESS SWORN.)

DIRECT EXAMINATION

BY MS. KONRAD:

Q. Good morning, Dr. Cohen.

A. Good morning.

Q. Can you hear me?

A. I hear you great.

Q. Okay. If there's any delay or any problem with the sound, just let me know and I can repeat the question. Will you please state your name.

A. Yes. My name is Joseph I. Cohen. The first name is J-O-S-E-P-H, middle initial I, last name C-O-H-E-N.

Q. And what is your profession, Dr. Cohen?

A. I'm a forensic pathologist.

Q. And how long have you been a forensic pathologist?

A. Twenty years.

* * * *

[CROSS-EXAMINATION]

[78] A. It is, yes.

Q. How often in your practice do you place an IV?

A. Oh, I don't place IVs anymore. I placed IVs on a daily basis during my surgery training, but not as a pathologist.

Q. How long ago was that, Doctor?

A. It was 1986. So 14, 27 years, 28 years.

Q. Doctor, do you recall reviewing any witness accounts from anyone with medical training that you're aware of?

A. I mean, I think there are some accounts by the paramedic and the physician of record, but I would have to look back and see to what degree they commented.

Q. And based upon what you believe you may have read about the doctor or the paramedics, you still determined that he was not unconscious. Is that what you're saying?

A. That he was what?

Q. That he was not unconscious when declared to be so by the doctor. Is that what you're saying?

A. Well, he was—I believe he was declared to be unconscious and then became conscious to some degree after that.

Q. And how do you determine he became unconscious, Doctor? Based merely upon the witness accounts indicating some degree of movement? Is that what you're saying?

A. Well, the witness accounts that were reported to me that I have here on paper that state Mr. Lockett was moving about, [79] trying to raise his head, trying to get off the table. That, to me, does not equate to unconsciousness.

Q. And if there were other accounts that indicated lesser movement or no movement, you think you would not give those the same weight. Is that what you're saying, Doctor?

A. Not necessarily, no. And I refer to several execution chamber witnesses, is what I perceived

them to be, as opposed to lay witnesses in the viewing room. Four said that they did not see movement. One said that there was slight movement. The other said there was more aggressive movement. I give them weight, too. I just don't know at what point in time that was during the—from 6:42 when the blinds were lowered to 7:06 when death was pronounced, those execution chamber witnesses reported what I just mentioned, but yet there were no lay witnesses anymore. So I think that there is a loss of transparency there that is frankly disturbing. I would give them weight just like I would give the others weight, to answer your question.

Q. Okay. So you're differentiating the people within the execution chamber from lay witnesses, you called them. Is that what you're saying?

A. That's right.

Q. And do you think the people within the chamber would have more weight and credibility than the lay witnesses? Is that what you're saying?

* * * *

[REDIRECT]

[87] Mr. Lockett's attorney, Mr. Autry, and based on the statements that I read into the record from both the Director Patton and Warden Trammell, do you—are you of the medical opinion that Mr. Lockett was not unconscious at some point after the midazolam was administered?

A. That's correct.

Q. And do you—as a medical professional, do you need to have regular practice placing an IV line to determine, as a forensic pathologist, whether somebody has good veins?

A. I do not have to perform that procedure to make that determination, no. I see these on a daily basis, having performed over 6,000 autopsies and reviewing numerous medical records on a daily basis. I do not need to perform that procedure to make that determination.

Q. Okay. And have you ever opined in previous cases whether somebody was, in fact, conscious based on witness accounts and information that's given to you either by one party or another?

A. Yes, and medical records. As I mentioned, I review voluminous records of decedents on pretty much a daily basis. I have for 20 years. And that includes people who are witnessed to die, people that are unwitnessed, issues of pain and suffering, mechanisms of death. I have reviewed numerous ER reports, paramedic reports, hospital records. And, yes, I make that determination, I give that opinion frequently.

MS. KONRAD: No further questions from me, Your

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[12] MS. GHEZZI: This is the updated and the only change is that 93 is on it.

THE COURT: Okay. I'm going to provisionally admit 1 through 88, plus 93. Eighty-nine through 92 are really too non-specific to be meaningfully addressed summarily as I have done with the rest of them. So 1 through 88 plus 93 are provisionally admitted. Provisionally in the sense that if there is a serious question about authentication, when they are referred to, I will expect defense counsel to raise the issue at that point. You may proceed.

MS. GHEZZI: And, again, we'll call David Autry at this time.

THE COURT: Very well.

DIRECT EXAMINATION

BY MR. BAUMAN:

Q. Mr. Autry, please state your full name for the record.

A. David Autry.

Q. All right, sir. And are you an attorney licensed to practice law in Oklahoma?

A. Yes, sir.

Q. How long has that been the case, sir?

A. Twenty-nine years.

Q. Now, were you involved in the Clayton Lockett case?

A. Yes, sir.

Q. How so?

* * * *

[18] remain there until you're escorted out at the conclusion of the execution.

Q. Okay. So we were at the point where the blinds were closed. Can you take us forward from that point, what happened then?

A. There was a 23-minute delay, like I indicated, before they raised the blinds. The blinds were raised at approximately 6:23 p.m. And I could observe Mr. Lockett on the gurney covered with a sheet. I could observe Warden Trammell, the physician, and probably a couple other DOC personnel. Warden

Trammell began the proceedings by asking Mr. Lockett if he had any last words. He said, no, he did not. And the warden then said words to the effect of let the execution proceed or let the execution begin.

Q. And then what happened next that you observed?

A. Approximately seven minutes passed and the warden signaled or indicated to the doctor to check Mr. Lockett to see whether he was unconscious or not. The doctor indicated that Mr. Lockett was not unconscious. Mr. Lockett audibly stated, at that point, "I'm not." And then approximately three minutes after that passed, the doctor was again checking Mr. Lockett to see whether or not he was unconscious. And at that time, he pronounced Mr. Lockett unconscious.

Q. All right. Then what did you observe after that time?

A. For approximately three minutes after that it appeared [19] that Mr. Lockett was unconscious. He was still on the gurney. His eyes were closed. It did appear for about a three-minute period of time after he was pronounced unconscious that he was unconscious.

Q. Okay. And then what happened?

A. After that approximate three-minute period of time, Mr. Lockett began to strain and writhe against the restraints. He attempted to speak and did speak. He raised his head and shoulders up at least three times and he was attempting to speak. He mumbled, "oh, man" or "man" at one point. And also, according to what I observed, said, "Something is wrong." And during this period of time, he was continually going up against the restraints, sitting up or attempting to sit

up, and raising his head and shoulders. Then he would fall back and his head and shoulders would fall back onto the gurney. And this was repeated two or three times.

Q. Okay. And then what transpired next after that?

A. After that, there was a period of time where Mr. Lockett was still writhing against the restraints. At approximately 6:39 p.m., by my estimate, based on looking at the clock on the wall, the warden directed that the blinds to the execution chamber be lowered.

Q. Okay. And you did mention about the —you have made some pretty specific observations as to time and you mentioned about a clock. How did you know what the times were?

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[187] it was a difficult situation.

Q. And you don't remember someone calling you a wimp?

A. Let me see. I'm trying to think. No.

Q. Would your memory have been better closer in time to the execution on the 15th of May?

A. Yes. I mean, you know, as time goes on, you forget things and they aren't as clear.

MS. GHEZZI: No further questions.

THE COURT: Any recross?

MR. STEWART: No, Your Honor.

THE COURT: You may step down. We'll have the plaintiffs' next witness.

MS. GHEZZI: Lis Exon.

LISBETH EXON,

(WITNESS SWORN.)

DIRECT EXAMINATION

BY MR. BAICH:

Q. Good afternoon, Ms. Exon.

A. Good afternoon.

Q. Could you state your name and spell it for the record, please.

A. Lisbeth Ann Exon. L-I-S-B-E-T-H, A-N-N, last name E-X-O-N.

Q. And could you tell the Court your occupation.

A. I'm a journalist for OETA Public Television. We're a [188] state agency. We broadcast across the state of Oklahoma.

Q. And how long have you been a journalist?

A. Thirty-five years.

Q. And have you been a journalist in Oklahoma the entire time?

A. No. I worked in other markets in television in Orlando, Florida, and Denver, Colorado, and Houston, Texas.

Q. Have you had any other occupations other than being a journalist?

A. Yes.

Q. Can you tell me what else you did?

A. There was a break in my journalism career before I went back to OETA and I worked in the Tulsa County District Attorney's Office as a victim/witness advocate on major cases and also was involved in preliminary hearings.

Q. And maybe you said this. What is your current position at OETA?

A. I'm a producer journalist reporter.

Q. I would like to direct your attention to April 29, 2014. Do you have any recollection of what you were doing that day?

A. Yes. I was assigned to cover the executions in McAlester of the two inmates and drove over with my photographer and met in the—I guess where the reporters gathered in a separate building across the way from the McAlester state prison.

Q. And am I to understand that the reporters gather in one

* * * *

[192] A. Okay.

Q. You noted that—I'd like to direct your attention to the middle of the page, starting at the top up there, 6:23:35.

A. Yes, from—the first drug was administered at 6:23 and 35 seconds. And from that time to 6 minutes and 28 seconds, so about four and a half minutes, Lockett is just on the gurney with a sheet over him staring at the ceiling. His eyes just keep blinking. And then he's occasionally licking his lips and he's fully conscious.

Q. Could you tell me how you knew what time it was?

A. In the execution room, there is a clock on the back of the wall that we could clearly see.

Q. And you said that a paper and pencil were provided to you. Were you taking notes of your observations?

A. Yes.

Q. Okay. So you noticed that Mr. Lockett was staring at the ceiling, licking his lips. What happened next?

A. At 6:29 he closed his eyes, but he's still breathing. And at 6:30:35, so 6:30 and 35 seconds, the doctor opens Lockett's eyes and kind of thumps on his chest and says something to the warden. And then the warden announced Lockett is not unconscious. And then at 6:32, Lockett's eyes closed and his mouth kind of went slack. It was open. And the doctor approaches him again and opens his eyes, thumps and rubs on his chest, and then he declared that Lockett is unconscious.

[193] Q. And after the doctor declared that Mr. Lockett was unconscious, what did you see next?

A. At 6:34:55 Lockett is still on the gurney breathing. So about a minute and a half later, at 6:36, he kind of lifts up off the gurney. He's strapped down, so he can only move his shoulders and his head forward. And I remember him kind of almost doing a circular—you know, not a whole circular, but just kind of a half moon motion and he mumbles something is wrong.

Q. You indicated that he was rolling. Do you know which way he was trying to roll?

A. He was kind of leaning to the right and just kind of did a half moon and went back.

Q. Did he do this once?

A. No.

Q. Do you know how many times he moved?

A. I'm going to have to look at my notes here. Okay. So then he—again lifting his shoulders off the gurney after he had done it once and then he's lifting up and then he's grimacing, lifting his head and shoulders off the gurney, and then he lifts his upper head and shoulders with a lot more force. It just seemed to get—his jerking up off the gurney seemed to be getting more forceful. And I heard him say, "man." Like, "oh, man," you know, like—and then when he did that—when he did the last gigantic—really large [194] pronouncement jerking forward, shoulders off the gurney, head moving forward, grimacing, then they announced, ladies and gentlemen, we're going to temporarily close the blinds.

Q. You said that the lifts got more progressive.

MR. BAICH: Susie, could you pull up 653, page 653.

Q. (BY MR. BAICH) And starting with, "you know," could you—

A. I said "you know" a lot. He lifts off the gurney and it progressively gets more pronounced. It was like a violent jerk up.

MR. BAICH: Could you scroll down a little more.

Q. (BY MR. BAICH) Do you see the sentence, "I mean, he—he was using all the force he had to lift up"?

A. Okay. Yes. Because he was strapped down, his movements were restricted, but it was like he was using all the force he had to try to lift up and, you know, like, I don't know, against the strap, just trying as hard as he could.

MR. BAICH: One moment, Your Honor.

Q. (BY MR. BAICH) 656. Toward the top, "I mean he was able to say somethings wrong and oh man."

A. Uh-huh.

Q. So you remember him saying both of those things?

A. Uh-huh.

Q. And 655. Starting with Captain Holt saying, Making kind of a movement.

[195] A. Yes. I guess he's asking me because I think I used the word "grimacing" and wanted me to explain that, like he was in pain. And I said—to explain that I meant I explained to the investigator that he was squeezing his eyes tight and tightening his muscles and his mouth as if he were grimacing in pain.

Q. Okay.

MR. BAICH: No further questions.

THE COURT: Cross-examination.

CROSS-EXAMINATION

BY MR. STEWART:

Q. Ms. Exon, you stated that it looked like he was in pain, correct?

A. Uh-huh.

Q. You don't have any medical background, do you?

A. No.

Q. You're not a licensed physician?

A. No.

Q. You're not a licensed EMT?

A. No.

Q. You're not a licensed nurse?

A. No.

Q. So this was merely your lay interpretation of what you were seeing?

A. It is consistent with other people I have seen in great

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[301] and we weren't changing anything but the drug. You know, we had changed the first drug before to pentobarbital from sodium thiopental. And so that's the only part that I was concerned about was the first drug, the sedating drug.

Q. And, in fact, those changes that you made to the protocol as you're talking about it, that was the only substantive change you were making, wasn't it, was the drugs?

A. Yes, it was.

MR. HADDEN: Thank you.

THE COURT: You may step down. We'll have the plaintiffs' next witness.

MR. BAUMAN: Your Honor, we call Scott Crow.

THE COURT: Say that again.

MR. BAUMAN: Scott Crow.

SCOTT CROW,

(WITNESS SWORN.)

DIRECT EXAMINATION

BY MR. BAUMAN:

Q. Mr. Crow, would you state your full name for the record, please.

A. Yes, sir. My name is Scott Crow, C-R-O-W.

Q. Okay. And you've previously been deposed in this case as a Rule 30(b)(6) witness representing the Department of Corrections; is that correct?

A. Yes, sir, that's correct.

[302] Q. All right. So in the five years preceding the Lockett execution, how often did the Department of Corrections use a one-line IV system—

THE COURT: First of all, I need to know what's his job, who is he?

MR. BAUMAN: All right.

THE COURT: I got his name and he's a 30(b)(6) witness.

MR. BAUMAN: All right. Sorry, Your Honor.

Q. (BY MR. BAUMAN) What do you do at the Department of Corrections?

A. Sir, I'm the administrator of the field operations division.

Q. Okay. And you've not directly been involved in carrying out executions at the Department of Corrections; is that correct? I mean, you were deposed as a representative from the department, correct?

MR. HADDEN: Your Honor, I'm going to object to that on the basis—

COURTROOM DEPUTY: Use the microphone.

MR. HADDEN: I'm sorry. I'm going to object to that on the basis of 1015(B).

THE COURT: That will be sustained. There's another way to skin that cat, but that's not the way.

MR. BAUMAN: Okay.

* * * *

[320] A. Yes, sir, I did have some responsibility with that.

Q. Could you just explain briefly what those responsibilities were.

A. Director Patton requested that I—after the Clayton

Lockett execution that we do an assessment of the overall execution area and determine what could be done to improve on the structure of that process, the equipment and supplies that were—would be available and just improving on the overall efficiency of that area.

Q. Could you describe for the Court—you don't have to give every single detail, but describe generally what the improvements consisted of and what was changed.

A. Yes, sir. For the purpose of clarification, when we refer to the execution chamber, we're basically

referring to four components. We're referring to the witness room; the victim/witness room; the operations room, which was previously referred to as the chemical room; and then the actual execution chamber.

In the witness area, we actually—actually, this impacts a couple different areas, but one of the bigger changes was expanding the size of the operations room by approximately 3-and-a-half feet to accommodate the need for additional equipment and supplies. In doing that, we reduced the size of the actual execution chamber by the same number, which was approximately 3-and-a-half feet. And in doing that, it [321] decreased the size of the viewing windows from the witness room into the chamber, again, by approximately 3-and-a-half feet, which resulted in the number of chairs that were in the witness area previously being 25, that number was reduced to 19.

The doorway that was previously—that led from the witness area into the actual execution chamber, then ultimately into the operations room, that doorway was relocated out onto the hallway on the upper level of H-Unit. That change was made in order to improve on ingress and egress as far as into and out of the chamber in the operations room.

With regard to the witness area, we installed a drop ceiling. We improved the speaker system in that area as well as the sprinkler heads that were on the fire suppression system and also the ventilation system. We carpeted the whole area as well as replaced the previous fold-up style chairs with permanent chairs that are now affixed to the floor for security reasons.

We enhanced the glass that allows for viewing from the witness area into the actual execution chamber. We enhanced that with Lexan, which is bonded with—

it's five-eighths Lexan, which is bonded with glass, again for security reasons.

In the victim/witness area, we replaced the previous glass that was just regular glass that had privacy film placed on it to help with confidentiality of those witnesses, we replaced that with actually two-way privacy glass. We expanded the foot [322] room in that area by approximately 6 inches to allow for better entry—or egress and ingress as well as improve the ventilation system in that area and also replaced the chairs and installed a small light to ensure—or to improve on the safety of that area.

In entering the operations room, that area again was expanded by approximately 3-and-a-half feet. That area we installed a video system which consists of two monitors that provided video—or that allow for video feed from the execution room which has two cameras installed. One of the cameras is at the head of the bed.

THE COURT: I'm going to ask you to slow down, please.

THE WITNESS: Yes, sir. I apologize. One of the cameras is at the head of the bed. The other camera is at the foot of the bed. Each of those cameras have pan-tilt-zoom capability. So we have a controller in the operations room that allows for those cameras to be adjusted fixed at different locations as far as someone on the bed. We—yes, sir.

Q. (BY MR. HADDEN) Can I stop you right there because I wanted to make a point about the video feed. Is it your understanding on the new protocol that the members of the IV Team will remain in the control room during the execution unless needed in the execution chamber?

A. Yes, sir, in the operations room.

[323] Q. Okay. Will the IV Team members have access to this video feed during the execution?

A. Yes, sir. It is right there. It is on monitors that are—19-inch monitors that are displayed right there.

Q. And is it one of the intents with this upgrade to the video system that it provide a direct observation of the point of IV access so it can be monitored throughout?

A. Yes, sir, that's correct.

Q. And, again, that would be monitored by an IV Team member, correct?

A. Yes, sir.

Q. And pursuant to your understanding of the protocol, an IV Team member has to have at least some level of medical qualification, correct?

A. That's my understanding, sir.

THE COURT: Do both cameras have the tilt and swing capability?

THE WITNESS: Yes, sir, they do.

Q. (BY MR. HADDEN) Okay. Please continue.

A. With the camera systems, again, they provide the video feed into the operations room. The cameras and the video feed for that particular system are not recorded. They are not set up to record. They do not have the capability to record the way that they are installed.

In addition to that, we also replaced the sound system [324] throughout the execution chamber. And let me back up, sir, and say that in addition to the

video feed that's provided in the operations room, there is actually a component that allows for the video feed to be provided to the overflow area for the victim/witnesses which is located on the first floor of H-Unit. So we actually have that ability as well. We have the ability to turn that on and turn that off.

THE COURT: Let me interrupt with one clarifying question. You mentioned that the—there are basically four components to the physical arrangement. You referred to the victim and witness rooms. Am I to understand that there is one room that is for victim/witnesses or victim family witnesses only and then another room that more generally is for other individuals who are authorized to view the execution?

THE WITNESS: Sir, the victim/witness, we actually have a room within the chamber itself that's for victim/witnesses, but we have an area that's designated on the first floor that's actually a programs room that can be used to accommodate an overflow if we have a number of victim/witnesses that exceeds the capacity of the room in the chamber.

THE COURT: I understand that. But you mentioned four components to the execution chamber. Just list those four to me speaking slowly.

THE WITNESS: Yes, sir. It would be the operations room, the execution chamber itself, the witness room, and the [325] victim/witness room.

THE COURT: Okay. That's what I thought. Go ahead. Next question.

Q. (BY MR. HADDEN) Okay. Is there any further upgrades that

A. Just a couple, sir. We improved on the sound system. Again, we created a two-layer system. One

system is that, as I mentioned previously, where the mic is turned on and off from the execution chamber into the witness area. The second mic, which I referred to as the lapel mic, is actually a mic that's placed on the offender when he is secured—he or she is secured to the bed. At that time, that microphone is turned on and it remains on throughout the process of the execution. But, again, that audio feed is only into the operations room and nowhere else.

In addition, in that particular area, we installed a medical supply—medical equipment and supply cabinet as well as installed seating benches that have storage capabilities within them. In addition to the medical supply cabinet, we created an inventory list of all the medical supplies that are required to be maintained in that area and an inventory list to ensure that they are inventoried and maintained regularly.

Additionally, we installed a phone bank of three phones in the operations room that allows the director direct access to the Governor's Office, the Attorney General's Office, and then [326] a third line that could be utilized as an outside line but it's specifically designated for communication within the facility. Beside that, we installed a two-way microphone—or a two-way intercom system. That is a system that allows for communication between the operations room and the execution chamber itself.

With that system, the director or anyone in the operations room can actually communicate into the execution chamber. And the person in that room can actually communicate through a device that's in that room as well or they can just speak through the microphone that's—that protrudes from the wall and

the communication goes back into the operations room.

Further, we installed an ECG machine that has the capability of monitoring the offender's blood pressure, oxygen saturation, and heart activity. In addition to the one machine, we have a second machine that is exactly like the first that serves as a backup should there—we experience a problem with the first machine. We also purchased an ultrasound machine, a portable ultrasound machine for, in our application, artery or vein detection. We replaced the existing surgical table that was in the room that was experiencing problems with the hydraulics.

One of the things that we also completed was a backup to the overall system as far as electrical is concerned. And we installed all the equipment in such a way that it has—it's [327] on battery backup should there be a problem or we experience a problem with utilities there. The equipment has an operational capacity of up to five hours should the electricity fail. We also installed a sink in the operations room, which was not there previous, as well as a small heating and ventilation system that was also not there previously.

Q. Okay. One of the things that you had talked about, I didn't want to just ask you one or two questions about, and that is you talked about expansion of the ops room, I believe. Do you recall talking about that?

A. Yes, sir, I do.

Q. Okay. And was that something that was done as a result of recommendations from the Department of Public Safety?

A. Yes, sir, in a sense. There was—the recommendation was to expand on equipment and supplies. And in order to do that, we had to make for more room in that area to accommodate that equipment and supplies. So, yes, sir, in a sense.

Q. In terms of reduction of chairs, I think you said they went from 25 to 19; is that correct?

A. Yes, sir, that's correct.

Q. Okay. Are there a number of persons who are required to have seats available pursuant to Oklahoma law?

A. Yes, sir, there are.

Q. And just briefly, you don't have to give me every one, but just briefly, what types of persons are required to have seats?

[328] A. Sir, I'm not prepared to specifically state which individuals are and are not, but it's my understanding that, of course, witnesses—as far as the offender witnesses and family is concerned, there's accommodations for those individuals as well as law enforcement from the county or jurisdiction from which the crime occurred, whether that be the district attorney or the sheriff. And to the best of my ability to quote, sir, that's what I can speak to today.

Q. Okay. That's fine. But it is your understanding that there is a state law that governs at least—or mandates the use of some of those seats?

A. Yes, sir.

Q. You also mentioned an ultrasound machine. What is the purpose of that specific machine?

A. In our application, sir, it is a—if you will, a vein detector or an artery detection device.

Q. Okay. And was that—was that purchased or placed in there as a result of DPS recommendations?

A. Yes, sir, I believe that's correct.

Q. If a medical professional who was going to be involved in an execution wanted additional equipment, is there anything in the protocol to your knowledge that would prohibit them from bringing it or requesting it?

A. Not to my knowledge, sir.

Q. You also mentioned replacement of the table. Do you

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[607] Q. And you don't know whether anyone at DOC has?

A. I do not have that knowledge. I can tell you I have not contacted OU Medical. I believe that's who you said.

MS. GHEZZI: That's all. It was more than one question.

THE COURT: Very well. Any cross-examination?

MR. JOSEPH: No, Your Honor. Thank you.

THE COURT: You may step down.

THE WITNESS: Thank you, Your Honor.

THE COURT: Now, I take it that concludes the plaintiffs' presentation of testimony?

MS. GHEZZI: It does, Your Honor.

THE COURT: Very well. We'll have the defendants' first witness. Actually, be the second witness.

MR. HADDEN: Defendants call Dr. Joni McClain.

JONI McCLAIN,

(WITNESS SWORN.)

DIRECT EXAMINATION

BY MR. HADDEN:

Q. Good afternoon. Will you please state your name and spell it for the record.

A. Joni McClain. That's J-O-N-I, M-C, capital C, L-A-I-N.

[608] Q. And would you please just briefly go over your—well, let me start first: Did you have some involvement in the investigation of the execution of Offender Clayton Lockett?

A. Yes, I did.

Q. And what was that?

A. I performed the autopsy in Dallas at the Southwestern Institute of Forensic Sciences. The autopsy was ordered by Governor Mary Fallin.

Q. Would you briefly review your qualifications to perform that autopsy.

A. Graduated from the University of Oklahoma School of Medicine in 1983. I then spent four years at the Oklahoma Teaching Hospital doing an anatomic and clinical pathology residency. After that, I spent one year at Indiana University doing a forensic pathology fellowship. After that, I spent four years in the Air Force as a medical examiner at the Office of the Armed Forces Medical Examiner. Then I was hired in Dallas in June of 1992 as a medical examiner and I became the deputy chief in October 2004.

I'm board certified in anatomic, clinical and forensic pathology. And I'm also the past president of the National Association of Medical Examiners. I'm licensed to practice medicine in Texas and Oklahoma.

Q. Okay. Thank you. And are you currently employed at SWIFS?

[609] A. I'm now retired. I retired June of this year.

Q. Thank you. Doctor, as part of your examination, at some point you received the body of Clayton Lockett, correct?

A. Correct.

Q. Are you critical of anything that was done or not done to the body of Clayton Lockett before you received it?

A. No.

THE COURT: That covers a lot of ground.

MR. HADDEN: I thought I would see how that went, Your Honor.

THE COURT: Well, I mean, this started on the 29th of April.

MR. HADDEN: All right, Your Honor. Trying to move it along.

Q. (BY MR. HADDEN) Is there anything that was done or not done to the body of Clayton Lockett before you received it that in any way interfered with your ability to examine it?

A. Really, nothing interfered. I received everything from the Tulsa Medical Examiner's Office. They had started an autopsy where they had made a superficial incision and they had also removed veins and had pinned them out and sent them to our office in formalin. They did a good dissection on that.

Q. Okay. Doctor, I'm going to ask you to refer to your report, which is marked as Plaintiffs' 66 and 67, and ask if

* * * *

[622] concentration of that substance in the blood that was drawn?

THE WITNESS: It shouldn't. You know, the body was refrigerated. And I believe if you have it, I think Oklahoma may have run that also in their tox lab, and I don't know what their level was. I could probably look through here. I may have that or you may have it, but we could look at that.

Q. (BY MS. KONRAD) And that was going to be my next question, to ask you about that. Have you seen the Department of Public Safety executive summary that was done of their investigation of Clayton Lockett?

A. You'll have to show me what that looks like.

MS. KONRAD: Can you pull up Exhibit 65, please.

Q. (BY MS. KONRAD) And it's on the screen in front of you, Dr. McClain.

A. I may have seen this. I can't be for sure, but if you've got the tox from Oklahoma, let's see what that is.

Q. The—in this executive summary, it has a summary of the tox on page 19. And at Section E, they summarize the toxicology results from OCME. And they have there at the third sentence I think it says the results indicated midazolam concentration of .57 micrograms per milliliter. Do you see that?

A. Yes.

Q. And would that information change your opinion that he had [623] been administered midazolam above therapeutic levels?

A. Look real quick. It's micrograms per mill. It's probably more—kind of looking at it, then these other units, it's therapeutic to a little over.

Q. And what do you mean by a little over therapeutic?

A. There is some examples here. This is from Baselt, a 5 milligram IV dose, the average is 112 micrograms per liter.

Q. And just so I understand what you're reading from, that data, is that in a deceased person?

A. Yes, that's—Baselt is a toxicology book that medical examiners use.

So in this one, micrograms per liter and this was micrograms per milliliter, and so that would be, like, 570 that would convert to micrograms per liter. So a 5 milligram dose, you would get, like, 112, and this would be the same as 570 micrograms per liter.

And then to maintain, you know, surgery, that's 1,254 micrograms per liter. So you usually need more than that or the average that they give to someone that's undergoing surgery. This is about a half of the amount that you would normally get to maintain surgery.

The units are all different, so you have to kind of convert.

Q. Did you do any calculations to support your autopsy report?

OKLAHOMA DEPARTMENT OF PUBLIC SAFETY

The Execution of Clayton D. Lockett

Case Number 14-0189SI

Executive Summary

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I. BACKGROUND

The State of Oklahoma, through the Office of the Attorney General (OAG), filed an *Application for Execution Date* for Clayton Derrell Lockett on January 13, 2014. Lockett had been convicted of first degree murder for a 1999 case in Noble County and sentenced to death. On January 22, the Oklahoma Court of Criminal Appeals ordered the execution to be set for March 20. Motions were later filed on behalf of Lockett and another offender sentenced to death, Charles Warner, that challenged Oklahoma's execution-secrecy law and execution protocol. On March 18, the Court of Criminal Appeals vacated Lockett's execution date and it was reset for April 22. This order also rescheduled Warner's execution from March 27 to April 29.

On April 9, the Court of Criminal Appeals denied an application for stay made by both offenders. On April 21, the Oklahoma Supreme Court issued a stay of execution for Lockett and Warner. In response, Governor Mary Fallin issued Executive Order 2014-08, which granted a stay of Lockett's execution and rescheduled it for April 29, based on the Supreme Court not having constitutional authority to issue a stay. On April 23, the Supreme Court dissolved their stay. Between April 23 and April 29, an application for extraordinary relief was denied by the courts, as was another request for a stay.

On the morning of April 29, Oklahoma Department of Corrections (DOC) personnel began procedures to prepare for Lockett's and Warner's executions at the Oklahoma State Penitentiary (OSP) in McAlester, Oklahoma. Lockett's execution was scheduled to begin at 6:00 p.m. Lockett was removed from his cell that morning and taken to the Institutional Health Care

Center (IHCC), located on prison grounds, for self-inflicted lacerations to the inside of his arms and his pre-execution medical examination. Lockett remained at IHCC until later that afternoon, when he was returned to H-Unit to await his execution.

Lockett was taken to the execution chamber, placed onto the table, and after failed attempts in other locations, an intravenous (IV) line was started in Lockett's right groin area. On the order of Warden Anita Trammell, the administration of execution drugs began. Several minutes into the process, it was determined there was a problem with the IV patency. The execution was stopped and Lockett later died in the execution chamber.

On April 30, Governor Fallin issued Executive Order 2014-11, which appointed Secretary of Safety and Security and Department of Public Safety (DPS) Commissioner Michael Thompson to conduct an independent review of the events leading up to and during Lockett's execution. This order stated the review should include:

1. An inquiry into the cause of death by a forensic pathologist;

2. An inquiry into whether DOC correctly followed their current protocol for executions;

3. Recommendations to improve the execution protocol used by DOC. The order further directed that the Office of the Chief Medical Examiner (OCME) authorize the Southwestern Institute of Forensics Science (SWIFS) in Dallas, Texas to perform the autopsy, additional examination, and all other related testing of Lockett's remains.

In order to effectuate the examination, OCME was directed to transport Lockett's remains to and from SWIFS. OCME was also ordered to appropriately maintain Lockett's remains until they were released to his family. Commissioner Thompson assembled a team of DPS investigators to conduct this investigation and report its findings. This executive summary, along with its attachments and supporting documentation, are the result of the investigation conducted by this team.

II. INVESTIGATION

This investigation was conducted by a team of six investigators assigned full-time to the case. Nine investigators and a criminal intelligence analyst were also utilized part-time to assist with the case. All investigators were sworn, law enforcement members of the Oklahoma Highway Patrol (OHP) Division of DPS. A medical expert was also consulted during the investigation to assist the investigators in understanding the various technical aspects related to the medical procedures that were performed during the execution. The expert was a current, American Board of Surgery certified physician with more than 35 years of experience in the medical field. The remainder of this section outlines the methodology utilized by the team to complete this investigation.

A. Autopsy of Clayton D. Lockett

On April 29, at 7:50 p.m., DOC released Lockett's body to the OCME designated transport contractor, Ray Francisco's Embalming Service, who transported the body to OCME in Tulsa, Oklahoma. On the morning of April 30, OCME pathologists began an external examination of the body. A portion of the superficial veins of the right and left arms were

explored, photographed and removed. Personnel also obtained a blood sample from the left femoral artery/vein. Around 11:30 a.m., pathologists were notified to stop the examination pursuant to the aforementioned Executive Order. They had not started a posterior body inspection or internal examination. OCME staff sealed the body and evidence in a body bag and placed it in storage. Later that day, Lockett's body and evidence were transported by Ray Francisco's Embalming Service to SWIFS and the transport was monitored by a member of the investigation team.

On May 1, the autopsy of Lockett's body was conducted by Dr. Joni McClain and other SWIFS staff. A member of the investigation team observed the autopsy and evidence processing procedures. Dr. McClain completed the external and internal examinations of the body utilizing SWIFS' normal procedures and protocols. After the autopsy was complete, Lockett's body was released to Ray Francisco's Embalming Service and transported back to OCME in Tulsa.

During this investigation, the investigation team met with the SWIFS pathologists and staff to gain a better understanding of their autopsy process and its findings. The results of the autopsy and the toxicology tests that were completed are summarized in the *Findings* section of this report.

B. Tour of the Oklahoma State Penitentiary

On May 5, the investigation team met with Warden Trammell and several OSP staff members to prepare for a tour of H-Unit and IHCC. The team was escorted through H-Unit, where they viewed the holding cells, shower, execution chamber, executioners' room and medical room. The team also collected evidence during

the tour. The team was then escorted to IHCC and viewed the area where Lockett was treated for his self-inflicted wounds and the cell where he was held, until being returned to H-Unit. After the tour, the team met with Warden Trammell and her staff to collect additional evidence and retrieve documents requested for the investigation. Several measurements and photographs were taken during the tour to document the execution facilities, which were later used to construct Diagram II.1.

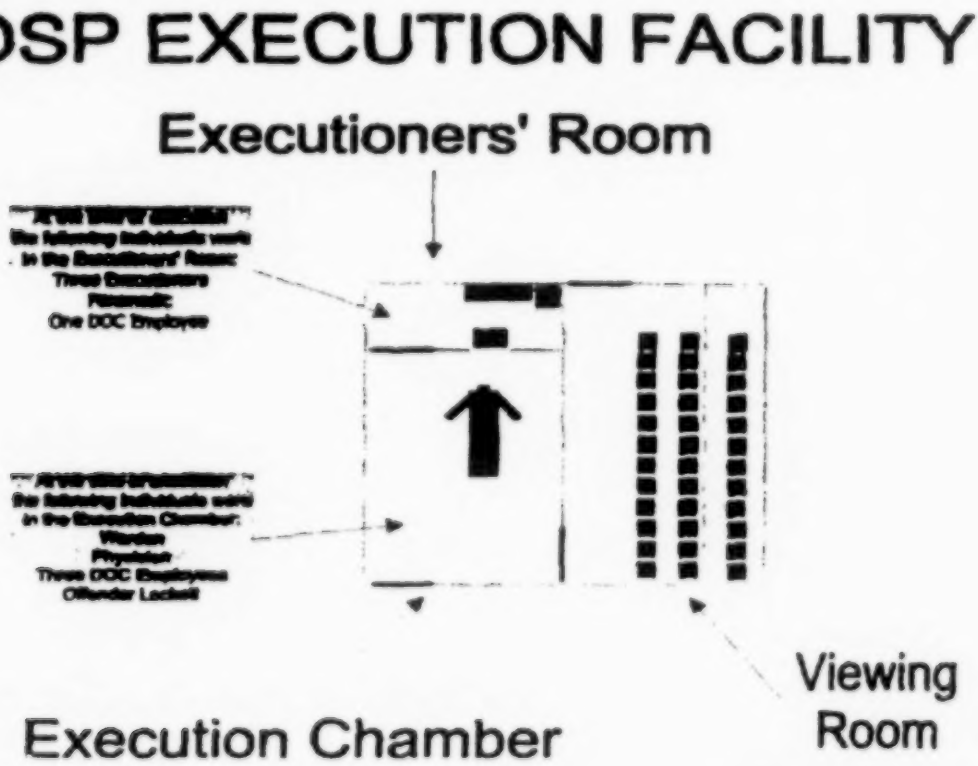

Diagram II.1

On June 30, members of the investigation team returned to OSP to gather additional information from the execution chamber. A team member was strapped to the execution table by two OSP strap-down team members who had strapped Lockett to the table. OSP staff observed the process to ensure that every strap

was utilized in the same manner it was on the day of Lockett's execution. The team measured the ability for a person to move and their range of motion, once secured to the table, and took photographs from the viewing room to show the different perspectives from the various seating locations.

C. Collection of Evidence

Numerous items of evidence were collected and preserved during this investigation. This evidence included digital photographs, audio recordings, video recordings, documents and other items of physical evidence. The remainder of this section is a summary of the evidence collected.

During their examination, OCME staff collected a blood sample from Lockett's left femoral artery/vein. An aliquot of that sample was submitted by OCME to NMS Labs in Willow Grove, Pennsylvania, to test for the presence and concentration of midazolam and vecuronium bromide. On June 12, the investigation team obtained another aliquot of that sample and submitted it to ExperTox Laboratory in Deer Park, Texas, to test for the presence and concentration of potassium. In accordance with their normal procedure, OCME had not requested NMS Labs to test for the presence and concentration of potassium. The results of these examinations are included in the *Findings* section of this summary. The remainder of the sample is being stored by OCME.

On May 1, evidentiary items related to the administration of execution drugs to Lockett were released by SWIFS to the investigation team. These items were delivered by a team member to ExperTox. Evidence items that were inside Lockett's body bag and body are being maintained at SWIFS, the

Oklahoma State Bureau of Investigation Laboratory or the OHP evidence storage facility. The team also collected the execution drugs and containers that were prescribed to offender Charles Warner. Custody was transferred from OSP personnel to a team member, who hand-delivered them to ExperTox for testing.

On May 5, approximately 200 items of evidence were collected at OSP, during the facility tour. They consisted of items from Lockett's cell, the execution chamber, the executioners' room and video footage from inside the facility prior to the execution. Executions are not recorded; therefore, there was no video footage of the actual execution. These items are being maintained at the OHP evidence storage facility.

D. Review of Surveillance and Camcorder Video

Thirty-two compact disks containing surveillance and camcorder video footage were collected and viewed. Following is a summary of this video provided by DOC:

1. Video surveillance footage from OSP for April 29, from 5:15 a.m. to 5:22 p.m., that recorded Lockett's movements in H-Unit and IHCC;

2. Camcorder video footage for the planned use of force that showed the extraction of Lockett from his cell on the morning of April 29. The footage contained statements explaining the force, restraints to be used and each extraction team member's duties. The footage also captured his treatment at H-Unit medical, his transport to IHCC, his treatment at IHCC and his X-ray;

3. Camcorder video footage of Lockett refusing a meal on April 29. The footage captured Lockett

refusing a meal and had a statement from DOC personnel that Lockett had refused all three meals that day.

E. Documentation Provided by Oklahoma Department of Corrections

Throughout this investigation, several hundred pages of documents were requested and obtained from DOC. This team requested any documentation related to Lockett and his execution, including but not limited to logs, incident reports, timelines and historical medical records. Following is a non-inclusive summary of those documents obtained from DOC.

1. Memorandums from Warden Trammel to OSP personnel;
2. Legal documentation related to Lockett's court proceedings;
3. Use-of-force documentation from April 29, including TASER training records;
4. Property inventory and log of items sent to Lockett's family;
5. Sequence of events, execution logs and execution timeline;
6. Lockett's historical medical records, mental health check information and case manager reports;
7. Execution drugs chain-of-custody forms;
8. Execution duties listed by department and training/practice logs;
9. Lockett's 30-day notification packets;
10. DOC execution procedures;

11. Various incident reports;
12. Affidavit of Warden Anita Trammell related to the execution drugs;
13. Diagram of the execution chamber;
14. Death warrant for Clayton Lockett;
15. Execution debrief personnel log;
16. Execution chamber key log;
17. Interoffice memorandums, emails and training documents related to the execution duties of DOC personnel.

F. Interviews

During this investigation, 113 people were identified to interview. Of those, 108 were interviewed, four media witnesses who viewed the execution declined to interview and one OCME employee was on extended leave and not available to interview. Follow-up interviews of select witnesses were also conducted. Each interview, with the exception of four, was audio recorded and reduced to a typed report by a transcription service. The four interviews that were not recorded included the three executioners and the pharmacist. Below is a summary of those that were interviewed:

1. The physician, Warden Trammell and three additional DOC personnel that were in the execution chamber at the time of the execution;
2. The paramedic, one DOC employee and the three executioners that were in the executioners' room at the time of the execution;

3. Persons that viewed the execution from the viewing room or overflow area, including personnel from DOC, Office of the Attorney General, media outlets, Lockett's attorneys, members of the Neiman family, the Noble County District Attorney and Sheriff's offices, the Perry Police Department and the Secretary of Safety and Security;

4. Governor Fallin and eight members of her staff;

5. Members of DOC's administrative staff including the Director, Associate Director, District Manager, current and former members of DOC's General Counsel staff;

6. OSP corrections officers involved in different aspects of the execution, including staff who interacted with Lockett several days leading up to the execution;

7. DOC medical and mental health staff members;

8. OCME staff involved in the examination and chain-of-custody of Lockett's body and evidence;

9. Employees of Ray Francisco's Embalming Service responsible for the transport of Lockett's body;

10. The pharmacist that filled the prescription of execution drugs.

III. FINDINGS

After reviewing and considering all interviews, documentation and evidence gathered during this investigation, this team has reached several conclusions regarding Lockett's execution. Some factors ultimately contributed to the issues that arose during the process, while others directly affected how those issues were handled by the personnel in the execution chamber. Each of this team's findings is listed below, along with a detailed timeline of events.

A. Timeline

The following is a timeline of events that occurred in regards to Lockett's execution. The approximate times associated with each event have been compiled utilizing witness accounts and documentation obtained during this investigation.

April 29, 2014

12:00-4:30 a.m.	DOC personnel conducted a unit check and count in H-Unit every 30 minutes. At 12:30 a.m., personnel conducted a welfare check of Lockett and no problems were noted or discovered.
4:30-5:05 a.m.	The Correctional Emergency Response Team (CERT) arrived at H-Unit and began preparations to remove Lockett from cell SW-3-JJ to escort him to IHCC for x-rays.
5:06 a.m.	CERT arrived at cell SW-3-JJ and Lockett refused to comply with orders. He was covered by a blanket and moving, but would not uncover

	or approach the cell door to be restrained.
5:09-5:50 a.m.	CERT exited the area of cell SW-3-JJ to prepare for cell entry and extraction. Blood was observed by DOC personnel inside cell SW-3-JJ. A use of force plan was established and approval was given by DOC administration to utilize a TASER.
5:30 a.m.	DOC personnel performed another check and Lockett failed to comply with the order to approach the cell door and uncover himself.
5:50 a.m.	CERT arrived at cell SW-3-JJ for extraction and determined Lockett had attempted to jam the door. The door was forced open, Lockett refused to comply with verbal commands and a TASER was deployed. CERT members observed self-inflicted lacerations on Lockett's arms.
5:53 a.m.	Lockett was secured by CERT, removed from the cell, placed on a gurney and transported to H-Unit medical. A razor blade from an issued, disposable shaving razor was located inside the cell and confiscated.
5:53-6:45 a.m.	Lockett was medically evaluated at H-Unit medical.
6:35 a.m.	Lockett was transported from H-Unit medical to IHCC. He was

	placed in IHCC holding cell S2 and remained in handcuffs and leg irons.
6:45 a.m.	DOC personnel entered cell S2 and medical staff evaluated Lockett's lacerations.
7:00-8:15 a.m.	DOC personnel entered cell S2 every 15 minutes to check Lockett.
8:15 a.m.	Lockett was removed from cell S2 and taken to the IHCC emergency room to be examined by DOC medical staff.
8:40 a.m.	Lockett was returned to cell S2.
8:50-9:35 a.m.	DOC personnel entered cell S2 every 10-15 minutes to check Lockett.
9:15 a.m.	Lockett refused visits from his attorneys.
9:42 a.m.	Lockett refused a food tray.
9:55 a.m.	DOC personnel entered cell S2 to check Lockett.
10:15-10:30 a.m.	DOC personnel entered cell S2 to check Lockett every 15 minutes.
10:25 a.m.	Lockett confirmed his refusal to visit with his attorneys.
10:45 a.m.	DOC personnel entered cell S2 to check Lockett and adjust restraints.
11:11 a.m.	Lockett refused a food tray.

11:20 a.m.	DOC personnel entered cell S2 to check Lockett and adjusted restraints.
11:35 a.m. - 3:55 p.m.	DOC personnel entered cell S2 to check Lockett every 15-20 minutes.
3:35 p.m.	DOC personnel retrieved the execution drugs from refrigerated storage at OSP for transport to the execution chamber.
4:10 p.m.	DOC personnel entered cell S2 to adjust restraints, redress and prepare Lockett for transport from IHCC to H-Unit.
4:15 p.m.	DOC personnel placed the execution drugs in the executioners' room.
4:31 p.m.	The three executioners and paramedic entered the executioners' room and began preparation.
4:40 p.m.	Lockett was transported to H-Unit and placed into shower SW-4.
4:55-5:10 p.m.	Lockett visited with a DOC mental health staff member.
5:19 p.m.	The five strap-down team members and Warden Trammell entered the cell area to remove Lockett from shower SW-4.
5:21 p.m.	Lockett was removed from shower SW-4 and escorted to the execution chamber.
5:22 p.m.	Lockett was placed onto the execution table and strapped down.

5:26 p.m.	The strap-down team exited the execution chamber.
5:27-6:18 p.m.	The paramedic and physician attempted IV placement access in multiple locations and were unsuccessful. The physician believed he started an IV in Lockett's right groin area.
5:45-5:57 p.m.	Victim's witnesses, media personnel, and Lockett's attorneys were summoned to the viewing room and seated.
6:18 p.m.	The paramedic and physician determined the IV line was viable.
6:20 p.m.	The paramedic re-entered the executioners' room.
6:22 p.m.	DOC Director Robert Patton and selected officials were summoned and seated in the viewing room.
6:23 p.m.	Director Patton received approval from the Governor's Office to proceed with the execution. He then approved Warden Trammell to proceed. The blinds between the viewing room and execution chamber were raised and Lockett was asked if he wished to make a statement. He refused and Warden Trammell announced that the execution was to begin. The full dose of midazolam and an appropriate saline flush were administered. A DOC employee began to keep time on a stopwatch.

6:30 p.m.	The signal was given that five minutes had elapsed and the physician determined Lockett was conscious. DOC personnel began to keep additional time on a stopwatch.
6:33 p.m.	The signal was given that two minutes had elapsed and the physician determined Lockett was unconscious. Warden Trammel signaled for the execution to continue. The full dose of vecuronium bromide, an appropriate saline flush and a majority of the potassium chloride were administered.
6:33-6:42 p.m.	Lockett began to move and make sounds on the execution table. It should be noted that the interview statements of the witnesses regarding Lockett's movements and sounds were inconsistent. The physician inspected the IV insertion site and determined there was an issue, which was relayed to Warden Trammell.
6:42 p.m.	At the direction of Warden Trammell, the blinds were lowered. The executioner stopped administering the potassium chloride.
6:42-7:06 p.m.	It should be noted that the interview statements of the individuals in the execution chamber were inconsistent. However, it was determined the following events did occur inside

the execution chamber during this time period.

- The paramedic re-entered the execution chamber to assist the physician.
- The physician attempted IV access into Lockett's left, femoral vein. However, no access was completed.
- When questioned by Warden Trammell, the physician initially believed that Lockett may not have received enough of the execution drugs to induce death. He also believed there were not enough execution drugs left to continue the execution.
- The physician and paramedic continued to monitor Lockett's heart rate utilizing an EKG machine. While attempting to gain the IV access, it was observed that Lockett's heart rate continued to decrease.
- The physician made the observation that the drugs appeared to be absorbing into Lockett's tissue.
- The physician and paramedic concluded that

Lockett's heart rate had entered a state of bradycardia and eventually slowed to an observed six beats per minute.

- There were three different recollections of Lockett's movements during this period. Four reported that Lockett did not move, one reported he moved slightly and the last recalled a more aggressive movement.

The following events occurred outside the viewing room door in the H-Unit hallway.

- Director Patton, OAG representatives Tom Bates and John Hadden and Secretary Thompson removed themselves from the viewing room and discussed with the Governor's Office about how to proceed.

6:56 p.m.	Director Patton halted/stopped the execution, which was relayed to the execution chamber.
6:57-7:06 p.m.	Witnesses were escorted out of the viewing room.
7:06 p.m.	The physician pronounced Lockett deceased.

7:50 p.m. — After being unstrapped from the execution table, Lockett's body was removed from OSP and transferred to the Office of the Chief Medical Examiner transport.

B. Autopsy Results for Clayton D. Lockett

Based on the autopsy, Lockett's cause of death was listed as *Judicial Execution by Lethal Injection*. The manner of death was listed as *Judicially Ordered Execution*. SWIFS pathologists concluded that Lockett died as the result of judicial execution by lethal injection. Following is a summary of the findings made by SWIFS personnel during their examination of Lockett's body and additional information obtained by the investigation team from SWIFS or through the investigation:

1. Judicial execution with:
   a. Execution protocol medications used: midazolam, vecuronium and potassium chloride.
   b. History of difficulty finding intravenous access sites resulting in numerous attempts to start an IV.
   c. Attempts in both antecubital fossa, both inguinal regions, left subclavian region, right foot and right jugular region.
2. Superficial incised wounds of the upper extremities consistent with history of self-inflicted incised wounds with a safety razor.
3. Contusions and abrasions of extremities.
4. Cardiac hypertrophy (480 grams)
5. Mild coronary artery atherosclerosis.

6. Hydroxyzine detected.

a. Lockett was prescribed hydroxyzine, but the prescription had ended March 3. There were emails from DOC personnel alleging Lockett had been hoarding medication. SWIFS personnel stated there were higher than therapeutic levels of hydroxyzine present in Lockett's system and hydroxyzine should not have interfered with the execution drugs administered. They also could not determine when or how much of the hydroxyzine was taken.

7. No evidence of dehydration.

8. No Taser marks on the body.

9. Toxicology indicated elevated concentrations of midazolam in the tissue near the insertion site in the right groin area, which is indicative of it not being administered into the vein as prescribed in execution protocols. The presence of midazolam in the psoas muscle indicates midazolam was distributed throughout Lockett's body during the execution. According to SWIFS pathologists, the concentration of midazolam located in Lockett's blood was greater than the therapeutic level necessary to render an average person unconscious.

10. Vecuronium bromide was found in the femoral blood sample taken from Lockett's body. The presence of vecuronium bromide in the psoas muscle indicates vecuronium bromide was distributed throughout Lockett's body during the execution.

11. Potassium was found in the femoral blood sample taken from Lockett's body.

C. DOC Execution Protocols

Regarding whether DOC correctly followed their current execution protocols, it was determined there were minor deviations from specific requirements outlined in the protocol in effect on April 29. Despite those deviations, it was determined the protocol was substantially and correctly complied with throughout the entire process. None of the identified deviations contributed to the complications encountered during this execution.

D. IV Insertion, Viability and Administration of Execution Drugs

The physician and paramedic made several attempts to start a viable IV access point. They both believed the IV access was the major issue with this execution. This investigation concluded the viability of the IV access point was the single greatest factor that contributed to the difficulty in administering the execution drugs.

While exploring this issue, several DOC personnel made statements referencing Lockett purposefully dehydrating himself. Lockett made statements to the paramedic that he had been dehydrating himself for three days. However, SWIFS pathologists found no indication that Lockett was dehydrated at the time of his execution. SWIFS also concluded Lockett's blood loss from the self-inflicted wounds to his arms should not have caused issues with the IV access.

Interviews and documentation indicated several vein checks had been performed by DOC medical personnel leading up to and on the day of the execution. Each check indicated that Lockett's veins were "good". At least three interviews of DOC medical personnel indicated they viewed Lockett's veins on the

morning of the execution. Their observations concluded his veins were "good" and acceptable for IV access.

The IV insertion process was started by an emergency medical technician licensed as a paramedic. The paramedic had been licensed in emergency medical services for more than 40 years and as a paramedic for over 20 years. This person had also instructed at the intermediate level. The licenses possessed at the time of the execution were valid until 2015 and were from the Oklahoma State Department of Health and the National Registry of Emergency Medical Technicians. The paramedic provided the prison a copy of the above licenses in January or February 2014. The paramedic estimated he/she had been involved in every lethal injection execution in Oklahoma, except for two. His/her specific assignments were to start an IV, ensure a proper infusion of saline, attach a cardiac monitor to Lockett and during the execution, make sure the executioners did their part of the procedure aseptically, at the correct time and the correct speed.

The IV access was completed by a physician licensed as a medical doctor. The physician graduated medical school over 15 years ago, currently worked in emergency medicine and was certified in family medicine. His license expires July 1 of each year and was current at the time of the execution. He had not provided a current copy of his license to DOC prior to April 29, but days later was called and asked for a copy. This was his second execution with the first being four to five years earlier. The physician understood his duties were to assess Lockett to determine if he was unconscious and ultimately to pronounce his death. He was contacted two days prior

to the execution date and asked to fill in for another physician that had a scheduling conflict.

Before Lockett was moved into the chamber, the paramedic prepared the IV lines and available execution tools. He/she also verified the drugs were properly labeled and were for Lockett. After Lockett was brought to the chamber and secured to the execution table, the paramedic began to assess his veins. The paramedic first attempted access in the left arm and found a vein with an 18-gauge needle/ catheter and observed flashback, a condition sought during IV placement. The paramedic did not have adhesive tape on his/her person to secure the catheter. Before the tape was retrieved, the vein became unviable. The paramedic then attempted two additional IV insertions into the left arm using the same type needles/catheters, but never observed flashback.

After these attempts, the physician became involved and attempted IV access into Lockett's left, external jugular vein utilizing a 1¼ inch, 14-gauge needle/ catheter. During his interview, the physician stated he penetrated this vein and obtained flashback. Seconds later, it became unviable and he was unable to continue with that vein. As the physician was attempting this access, the paramedic was attempting IV access into Lockett's right arm. After three attempts, the paramedic was unable to start a viable IV access point in this arm.

Next, the physician attempted to locate the subclavian vein on Lockett's left side utilizing a central venous catheritization kit. During the attempt, the physician observed a very small amount of flashback, but he was unable to repeat it. The physician believed the needle was penetrating through

the vein. He noted during his interview he did not have access to an ultrasound machine, which is a commonly used tool to locate and penetrate veins.

As the physician attempted subclavian access, the paramedic attempted IV access in two separate locations on Lockett's right foot with 20 gauge needles/catheters. The paramedic said the veins rolled and disappeared during those attempts. The paramedic believed the needle penetrated the veins, but flashback was never observed. The paramedic did not attempt access into any other veins because the physician made the decision to attempt access into a femoral vein.

The physician requested a longer needle/catheter for the femoral access. The paramedic attempted to locate a 2 or 2 1/2-inch, 14-gauge needle/catheter, but none were readily available. The physician also asked for an intraosseous infusion needle, but was told the prison did not have those either. Both agreed their preferred needle/catheter length would have been 1¾ to 2½ inches. The physician had never attempted femoral vein access with a 1¼ inch needle/catheter; however, it was the longest DOC had readily available. An additional central venous catheterization kit was available, but the physician did not think about utilizing one for femoral access.

Lockett's scrub pants and underwear were cut in order to expose the femoral area. The physician located the femoral vein and believed the vein was penetrated because he observed good flashback. The paramedic taped the catheter to Lockett's body, and stated during his/her interview it became positional. The physician believed it was bending because of its length. He and the paramedic positioned the catheter where they were able to observe slow infusion of saline

and secured it with adhesive tape. The autopsy did not conclude the femoral vein was punctured. However, SWIFS personnel indicated they only examined the portion of the femoral vein that had been dissected by OCME and not the entire vein.

The physician was asked about starting a second IV line. He stated he was not going to make another attempt. The physician and paramedic were comfortable with the IV placement and the infusion of saline through the line. This was not the first execution in Oklahoma where only one IV access point had been obtained and protocol allowed for only one access point.

Warden Trammell decided to cover Lockett's body with a sheet, including the IV insertion area, which, according to her, was normal in all executions. Another reason for her decision was to maintain Lockett's dignity and keep his genital area covered. From that time, no one had visual observation of the IV insertion point until it was determined there was an issue and the physician raised the sheet. Warden Trammell acknowledged it would be her normal duty to observe an IV insertion point for problems. She believed if the IV insertion point had been viewed, the issue would have been detected earlier. The physician added that an IV would normally be monitored by watching the flow of the IV line and the area around the insertion point for any signs of infiltration. This investigation found that neither of these observations occurred, which led to the issue being discovered several minutes after the execution began.

After the IV insertion was complete, the paramedic went into the executioners' room and the physician remained in the execution chamber. Once Warden Trammell announced it was time to begin the

execution, the paramedic began the procedure to administer the drugs. The paramedic first used a hemostat to clamp the IV line above the access port, to stop the flow of execution drugs from going up the line. The IV drip was never reestablished after that point. The midazolam and the appropriate flushes were administered into the single access port by the executioners in the order they were presented by the paramedic. The paramedic and executioners were certain the drugs were pushed steady and in the proper manner because of their past experiences in performing the same roles. The DOC employee in the executioners' room then began to keep time using a stopwatch.

According to execution protocol, the vecuronium bromide shall not be administered until at least five minutes after the administration of midazolam. Prior to the execution, DOC administration determined if Lockett was not unconscious after five minutes, he would be checked every two minutes, until he was declared unconscious. Five minutes after the administration of midazolam, the physician determined Lockett was conscious. After an additional two minutes, the physician determined that Lockett was unconscious.

Warden Trammell signaled for the execution process to continue. The executioners, with assistance from the paramedic, began administering the vecuronium bromide, the potassium chloride and the appropriate saline flushes. Both syringes of the vecuronium bromide, appropriate saline flushes, the first full syringe of potassium chloride and a portion of the second syringe of potassium chloride were

administered. At some point during the administration of these two drugs, Lockett began to move and the physician recognized there was a problem.

The physician approached Lockett and indicated to Warden Trammell that something was wrong. He looked under the sheet and recognized the IV had infiltrated. At this same time, Warden Trammell viewed what appeared to be a clear liquid and blood on Lockett's skin in the groin area. The physician observed an area of swelling underneath the skin and described it as smaller than a tennis ball, but larger than a golf ball. The physician believed the swelling would have been noticeable if the access point had been viewed during the process.

The execution process was stopped as one of the executioners was administering the second syringe of potassium chloride. The executioner immediately stopped pushing the syringe with approximately 10 milliliters of potassium chloride remaining. The remainder of the drug was later wasted into a biohazard bin by the paramedic.

The blinds to the execution chamber were lowered and the paramedic exited the executioners' room to assist the physician. The physician told the paramedic the catheter dislodged. The paramedic observed the catheter was tilted to one side and believed it was no longer penetrating the vein. The physician decided to attempt IV insertion into the left-side femoral vein. The physician first penetrated Lockett's femoral artery and another access point into the vein was never completed because the physician believed the drugs were being absorbed into his tissue.

The physician and paramedic were unsure when the catheter became dislodged and how much of each drug

had made it into Lockett's vein. The autopsy indicated elevated concentrations of midazolam in the tissue near the insertion site in the right groin area, which was indicative of the drugs not being administered into the vein as intended. Thus, the IV access was not viable as early as the administration of the midazolam.

E. Toxicology Results of Femoral Blood Sample: Clayton D. Lockett

On May 14 and May 19, OCME documented the toxicology results they received from NMS Labs on an aliquot of the femoral blood sample they obtained from Lockett's body on April 30. The results indicated a midazolam concentration of 0.57 mcg/mL and a vecuronium concentration of 320 ng/mL. On June 26, ExperTox completed toxicology testing of an aliquot of the same femoral blood sample. The results of this test indicated a potassium concentration of 0.74 mole/L. It should be noted that testing for the concentration of potassium after death can be problematic due to the body's natural processes, which cause an increase in the concentrations of potassium in the blood over time.

F. Toxicology Results of Execution Supplies: Clayton D. Lockett

On May 5, ExperTox completed testing of the execution supplies utilized during Lockett's execution. They analyzed the contents by liquid chromatography/triple quad mass spectrometry (LC/MSMS) and inductively coupled argon plasma-mass spectrometry (ICP-MS) for the detection and quantitation of midazolam, vecuronium bromide and potassium chloride. ExperTox reported the following:

1. The two syringes labeled midazolam contained residues consistent with the listed label content of 5 mg/mL.
2. The two syringes labeled vecuronium bromide contained residues consistent with the listed label content of 1 mg/mL.
3. The two syringes labeled potassium chloride contained residues consistent with the listed label content of 2 meq/mL.
4. The IV Tubing connected to two 0.9% NaCl one liter IV bags contained sodium chloride, blood, residues of vecuronium bromide at the final concentration of 0.013 g/mL and residues of potassium chloride at the final concentration of 1.3 meq/mL.

G. Toxicology Results of Execution Drugs: Charles Warner

On May 5, ExperTox completed testing of the drugs intended for use during the execution of Charles Warner. They analyzed the contents by LC/MSMS and ICP-MS for the detection and quantitation of midazolam, vecuronium bromide and potassium chloride. These tests were also utilized to determine drug agent potency. ExperTox reported the following:

1. The two 0.9% NaCl injection USP 1 liter IV bags tested consistent with the listed contents.
2. The seven 0.9% NaCl 50 mL bags tested consistent with the listed contents.
3. The two syringes labeled midazolam tested consistent with the listed label content of 5 mg/mL.

4. The two syringes labeled vecuronium bromide tested consistent with the listed label content of 1 mg/mL.

5. The two syringes labeled potassium chloride tested consistent with the listed label content of 2 meq/mL.

H. Execution Protocol Training of Execution Team

This investigation determined that DOC personnel did conduct training sessions as required by the protocol in effect on April 29. The sessions were conducted during the weeks and days leading up to the execution and consisted of planning meetings, on-the-job training for each of the respective positions in the execution chamber and executioners' room and walk-through training sessions for all involved staff members. The paramedic, physician and the three executioners were not included in this training prior to the day of the execution. The final training session included DOC administrative staff reviewing the sequence of events with all parties in the execution chamber just prior to the execution.

Field Memorandum OSP-040301-01, *Procedure for the Execution of Offenders Sentenced to Death*, outlines the training requirements that should occur prior to an execution. The following is a summary of the training procedures that were conducted prior to Lockett's execution.

1. A deputy warden or designee was required to review the sequence of events inside the executioners' room with the executioners and paramedic prior to each execution. Documentation and interviews substantiated

this requirement was completed on April 29 at 5:06 p.m.

2. The paramedic was required to give the following instructions to the executioners, "Administer the drugs at a steady flow without pulling back on the plunger of the syringe." The paramedic did not give this statement prior to this execution. However, the three involved executioners had been involved in multiple executions prior to Lockett's and each acknowledged their roles and duties. The paramedic also acknowledged his/her role to ensure the executioners did their job aseptically, at the correct time, speed and dosage.

3. The warden was required to review the sequence of events with the physician and other DOC personnel in the execution chamber prior to beginning the execution. Interviews and documentation indicated this occurred on April 29 at 5:15 p.m.

4. DOC protocol required the strap-down team to conduct a walk-through of the strap-down procedures no later than two weeks prior to the execution. There were multiple walk-through training sessions conducted prior to Lockett's execution. The last session was conducted within two weeks of Lockett's execution, as required by protocol.

This investigation revealed areas of training that need to be addressed. It was noted there was no formal training process involving the paramedic, the physician or the executioners and their specific roles. They were not involved in any pre-execution training

or exercises to ensure they understood the overall process. For those individuals, the current protocol had very minimal training requirements. The executioners only receive formal training from the paramedic on the day of the execution and informal training from previous executioners during actual executions.

Warden Trammell and Director Patton both acknowledged the training DOC personnel received prior to the execution was inadequate. Warden Trammell stated the only training she received was on-the-job training and that DOC had no formalized training procedures or processes concerning the duties of each specific position's responsibility. The warden and director both indicated DOC had no training protocols or contingency plans on how to proceed with an execution if complications occur during the process.

I. Contingency Planning for Executions

The DOC execution protocol in effect on April 29 had limited provisions for contingencies once the execution process began. One contingency allowed the physician to assist with initial IV access and the other concerned life-saving measures if a stay was granted. After it was determined that problems were present during Lockett's execution, personnel involved with the execution were unaware of how to proceed due to the lack of policies and/or protocols in place at that time. It was determined that no contingency actions were taken inside the chamber other than the physician attempting to locate the femoral vein on Lockett's left side, which was never completed prior to his death.

J. Cessation of Execution Protocols

When an issue with the administration of execution drugs was discovered, the blinds between the chamber

and viewing room were lowered. Several conversations took place inside and outside the chamber regarding how to proceed. The conversation outside the chamber included whether to continue or how to stop the execution. The conversations inside the chamber included whether to provide life-saving measures.

Outside the execution chamber, there were several conversations between Director Patton, Secretary Thompson, OAG representatives at the execution and General Counsel Steve Mullins with the Governor's Office. It was determined between Director Patton and General Counsel Mullins, who had conversed with the Governor, that the execution would be stopped. Director Patton then relayed to the witnesses and the personnel in the chamber that the execution was being stopped. In an additional conversation, General Counsel Mullins further told Director Patton that they would begin preparing a stay at the direction of the Governor. Lockett died prior to the order for a stay being relayed to the personnel inside the execution chamber. There was conversation inside the chamber about administering life-saving measures to Lockett, including transporting him to the emergency room, but no order was given.

K. Two Executions Scheduled on the Same Day

It was apparent the stress level at OSP was raised because two executions had been scheduled on the same day. This was the first time since 2000 two offenders were scheduled to be executed the same day. Four days prior to the execution, the protocol was revised to accommodate the logistics for two offenders.

Several comments were made about the feeling of extra stress. Warden Trammell believed this caused extra stress for all staff. The paramedic stated he/she

felt stress and a sense of urgency in the air. This was based on him/her having been involved in numerous executions.

L. Maintenance of Daily Logs

In accordance with protocol, OSP staff maintained a daily log of events and occurrences related to Lockett. Protocol stated, "Seven days prior to the execution of an offender sentenced to death, a daily log will be kept regarding every aspect of the proceedings except names." This investigation determined the information recorded on the logs was incomplete.

M. Use of Midazolam, Vecuronium Bromide and Potassium Chloride

The new three drug protocol utilized in this execution included the administration of midazolam, vecuronium bromide and potassium chloride. It was determined vecuronium bromide and potassium chloride had both been used in previous executions as the second and third drugs to be administered. This was the first Oklahoma execution where midazolam was used.

On April 14, midazolam was the newest drug added to the protocol after it was determined pentobarbital was not available. Pursuant to the death warrant, a dosage of 100 mg was ordered and administered to Lockett. According to protocol, vecuronium bromide was to be administered at a total quantity of 40 mg and the potassium chloride at a total quantity of 200 meq. These dosages were equivalent to the quantities used in other Oklahoma three-drug methods dating back to at least 2011.

This investigation could not make a determination as to the effectiveness of the drugs at the specified

concentration and volume. They were independently tested and found to be the appropriate potency as prescribed. The IV failure complicated the ability to determine the effectiveness of the drugs.

On the day of the execution, OAG representatives presented an affidavit to Warden Trammell related to the execution drugs. The warden signed the affidavit and attested that the drugs had been obtained legally from a licensed pharmacy and had been handled appropriately, since their acquisition. Interviews of DOC and OAG staff revealed this type of affidavit had been signed in the past, but never on the day of an execution. According to OAG representatives, the affidavit was executed on the day of the execution, due to ongoing litigation concerns regarding the drugs.

N. Historical Incident Reports and Medical Records

The investigation team obtained historical incident reports, emails and medical records from OSP regarding Lockett. The incident reports included approximately 42 instances where Lockett was disciplined for behavioral issues and for contraband located or suspected by DOC personnel. Examples include:

1. A cellular telephone was discovered in Lockett's cell several months prior to the execution;
2. DOC personnel suspected Lockett had been hoarding Vistaril (hydroxyzine) from a prescription that ended March 3;
3. A homemade rope was discovered on the floor of Lockett's cell during his extraction on the day of the execution;

4. A razor blade from an issued, disposable shaving razor was discovered in Lockett's cell on the day of the execution.

The review of Lockett's medical records by a medical professional indicated that he had no past medical conditions or factors that would be considered problematic for IV insertion or drug administration.

O. Lockett's Movements and Sounds after Drug Administration

The description of Lockett's movements and sounds varied among the witnesses. The movement descriptions ranged from quivering to thrashing, but most agreed Lockett's head did rise off the table. There were differing recollections regarding whether Lockett's eyes opened after he was deemed unconscious. The sound descriptions varied from mumbling to Lockett making statements. The recollections varied greatly; therefore it was difficult to determine what was said, if anything.

Several conclusions were made pursuant to the execution table assessment. While strapped to the table, the team member made attempts to move all parts of his body. He was able to rotate his feet inward and outward, move his shoulders slightly and his head had a full range of motion. He was not able to bend or move his knees and had minimal movement in his hips as he attempted to move from side to side. He could not move his hips up and down. The hands had no movement and the arms had minimal movement due to the elbow having limited motion. Based on what was observed, witnesses would have a different perspective of the amount of movement depending on where they were seated. Due to the restrictiveness of

the straps, the movements were minimal to non-existent with the exception of the head and feet.

IV. RECOMMENDATIONS

Based on the findings, the following recommendations are made for future lethal injection executions in Oklahoma. DOC, the Office of the Attorney General and any other entity or individual responsible for execution protocols in this state are urged to thoroughly research, review and deliberate these recommendations prior to their implementation. Further, DOC should review and consider policies and protocols from other states responsible for executions. Any changes to the current policies and protocols should comply with Oklahoma and federal law.

A. Observation of IV Insertion Point(s) and Infusion

1. The IV catheter insertion point(s) should remain visible during all phases of the execution and continuously observed by a person with proper medical training in assessing the ongoing viability of an IV. This person should remain inside the execution chamber during the entire process.

2. Once the appropriate saline infusion has started, it should not be stopped, except for the times that execution drugs are being administered. It should be continuously monitored to assist in ensuring IV viability in accordance with current medical practices and standards;

3. After one hour of unsuccessful IV attempts, DOC should contact the Governor to advise the status and potentially request a postponement of the execution.

B. Training and Maintenance of Execution Log for Condemned Offenders

1. Conduct formal, specific training related to information documented on all execution logs.
2. The information to be recorded on execution logs should include, but not be limited to:
    a. all statements or behaviors that could be detrimental to completing an execution;
    b. all meals provided to an offender and what portions of the meals the offender consumed or refused;
    c. all medication provided to an offender and the observations made by personnel as to whether the offender ingested the medication as prescribed;
    d. all liquids consumed by the offender.

C. Additional Execution Supplies

DOC should maintain and provide their own equipment and supplies ensuring their operability prior to each execution.

1. DOC should obtain from the selected pharmacist, one complete, additional set of each execution drug being utilized for an execution to be used in the event an issue arises with the primary set.
2. DOC should consult with appropriate medical personnel to determine any and all supplies or equipment necessary including, but not limited to the following:
    a. Heart monitoring equipment;
    b. Venous ultrasound equipment;

c. Appropriate needle/catheters to coincide with the IV access options listed in protocol.

D. Contingency Plans in Protocols/Policy

DOC should evaluate and establish protocols and training for possible contingencies if an issue arises during the execution procedure. DOC should consider planning for contingencies including, but not limited to:

1. Issues with execution equipment or supplies;
2. Issues with offender IV access, including obtaining alternate IV access site(s);
3. The offender is not rendered unconscious after execution drug administration;
4. A combative offender;
5. Unanticipated medical or other issues concerning the offender or an execution team member;
6. Issues regarding order, security or facilities at OSP.

E. Formal and Continuing Training Program for Execution Personnel

DOC should establish formal and continual training programs for all personnel involved in the execution process. They should explore successful training procedures used by other correctional institutions and implement accordingly.

F. Formal After-Action Review of the Execution Processes

At the conclusion of each execution, all personnel with assigned execution duties should attend an after-

action review. The review should be completed within five business days and conducted by the director or his designee. The events that occurred during the execution should be discussed in detail and each involved person should discuss their responsibilities and observations. The review should serve as an opportunity for all involved personnel to voice their opinions, concerns and/or recommendations in order for continuous improvement to the process. The review should be formally documented and retained for future reference.

G. Defined Execution Terminology

It was apparent during this investigation that specific terminology should be clearly defined so they are understood by all personnel involved in the execution process. This will allow DOC, OAG and Governor's Office personnel to have a common understanding of how each term affects the execution process and the actions that should take place, if such terms are used. Defined terms should include, but are not limited to "stop," "stay," and "halt".

H. Completion of One Execution per Seven Calendar Days

Due to manpower and facility concerns, executions should not be scheduled within seven calendar days of each other.

I. Updated Methods of Communication

The current communication methods used during the execution process are antiquated and require unnecessary multi-tasking from key personnel in the execution chamber. DOC should explore options on how to update the following:

1. Communication between the execution chamber and executioners' room.

    a. DOC should research and implement modern methods that allow personnel in these two areas to communicate clearly.

    b. The current processes, including the use of color pencils and hand signals, could be used as a contingency if other modern methods fail.

2. Communication between DOC and the Governor's Office.

    a. DOC should research and implement methods to modernize the communication link that would allow direct, constant contact between the personnel in the execution chamber and the Governor's Office.

J. Disposition of Executed Offender's Property

DOC should explore maintaining an executed offender's personal property and any items removed from his/her cell until the autopsy report is completed. This would allow DOC administrative personnel time to determine if such property should be maintained for an additional period of time, if appropriate circumstances exist. In any event, no property should be released until it has been properly searched and inventoried.

K. Execution Witness Briefing

As a result of the changing execution protocols and procedures, DOC should conduct a prepared pre-execution briefing with all attending witnesses. This briefing should include, but not be limited to the following:

1. An overview of the events the witnesses will view during the execution process, including an explanation that witnesses will not be allowed to view all aspects of the execution;
2. Requirements regarding the conduct of witnesses throughout the process.

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF OKLAHOMA

Case No. CIV-14-665-F

CHARLES F. WARNER, ET AL.,

Plaintiffs,

vs.

KEVIN J. GROSS, ET AL.,

Defendants.

TRANSCRIPT OF PRELIMINARY INJUNCTION HEARING BEFORE THE HONORABLE STEPHEN P. FRIOT UNITED STATES DISTRICT JUDGE
DECEMBER 17, 18 AND 19, 2014
9:00 A.M.

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[396] THE COURT: We'll now have the defendants' out-of-time witness.

MR. STEWART: The defendants call Captain Jason Holt, Your Honor.

THE COURT: Very well.

JASON HOLT,

(WITNESS SWORN.)

DIRECT EXAMINATION

BY MR. STEWART:

Q. Please state your name for the record.

A. Jason Holt, H-O-L-T.

Q. And what is your occupation?

A. I am a captain with the Oklahoma Highway Patrol.

Q. Captain Holt, how long have you been with the highway patrol?

A. Approximately twelve-and-a-half years.

Q. And during that time, what positions have you held?

A. For the first—for the first approximately four years, I was assigned to a field troop, a road trooper, which you would normally think of a highway patrolman to be. For the next approximately seven years, I spent in investigations. About two of that or so as a trooper and about another five or six of that as a lieutenant. And then in November of 2013, I was promoted to the rank of captain and actually have a field command at this point at Troop B in Tulsa.

* * * *

CROSS EXAMINATION

[428] Q. And were you in on each conversation with the medical expert?

A. No.

Q. And is there any report from this medical expert regarding what information he provided you?

A. There is not.

Q. And is there any memorandum of the conversations that you had or your investigators had with this medical expert?

A. There is not.

Q. And so in the some 5,000 pages of documents that we received from the Department of Public Safety in support of your executive summary, is there any information in there that provides information about what this medical expert would have provided as far as consultation?

A. There is not.

Q. What technical aspects related to medical procedures did he provide consultation on?

A. You know, again, we asked him about needle and catheter lengths. We asked him, you know, about the IV insertion process itself. If—you know, for example—and I don't remember everything that we asked him. But, for example, was it normal to start, you know, in the arm, as they started; is it normal to attempt in the jugular; what a "subclavian" is. Those kind of conversations are what we had with that person.

Q. Did you specifically ask him about the pharmacological [429] characteristics of the drug midazolam?

A. I do remember asking him generally what that would be used for in a medical setting. I do remember asking him that, yes.

Q. And was that the extent of his consultation on the drug midazolam?

A. Yes. We did not ask that medical person anything about what drug should have been used, how they could have been used, as far as it relates back to an execution.

Q. So even in what questions you asked him about midazolam, that related only to what that drug is used among doctors for therapeutic reasons for patients?

A. Yes.

Q. Did you discuss with him or consult with him on the pharmacological characteristics of vecuronium bromide?

A. Again, just what that drug would be used for. I don't know if the correct term would be "therapeutic," because I'm not a medical professional, but in a hospital setting what that would normally be used for.

Q. What did you learn from him about how that drug is used in a setting for a patient?

A. That it is a—let me think of the word. And I believe—and I'm not certain of the specific word he used, but what I took was that it was a paralytic.

Q. Okay. And that—was that the extent of what he provided you on vecuronium bromide?

* * * *

[446] Q. And there were two witnesses that expressed those particular words, weren't they?

A. I'd have to go back and read, but I remember at least one.

Q. And both of those, Ilinda Jackson and Edith Shoals, were ODOC victim/witness liaisons, I believe.

A. I believe so.

Q. And you would rely on the transcripts if those transcripts report that that's what those witnesses heard?

A. Yes.

Q. And there were multiple witnesses that heard mumbling, thought they heard words, but they couldn't really understand the words?

A. Yes, ma'am.

Q. Now, isn't it true your mission was limited, at least at the time the executive order was entered, to what the governor asked you to do?

A. Yes. The scope of our investigation was directly governed by that document.

Q. And one of those things was to determine the cause of death?

A. For the medical examiner's office to determine the cause of death, yes.

Q. And you relied on SWIFS for that?

A. Yes, ma'am.

Q. And whether DOC followed their own protocol?

[447] A. Yes, ma'am.

Q. And recommendations for improvement in the execution protocol?

A. Yes, ma'am.

Q. And you did not see it as your mission to actually investigate the drugs, particularly midazolam, that was being used under the protocol?

A. No, ma'am.

Q. Or to recommend any changes regarding the drugs that were used?

A. No, ma'am.

Q. Now—and your investigation really made no determination at all regarding the effectiveness of the drugs that were used?

A. We did not.

Q. At the concentrations that were given or the volume that was given?

A. No, ma'am.

Q. Now, you've recently taken a tour of the facility.

A. Yes, ma'am.

Q. Now, that's not part of your DPS investigation, is it?

A. It is not. It's not part of the executive summary or of the 5,000-page report that you referenced earlier.

Q. And so that tour, was it taken for the purposes of this litigation?

A. That tour was scheduled—we were going to do it at least

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* * * *

[682] Feasible alternatives exist that are not required under these circumstances. Feasible alternatives are required only for—and this is a—these words are quoted from Baze, grounds such as those asserted in Baze. Grounds such as those asserted in Baze. That can be found at page 61.

Our grounds are not like those asserted in Baze. The lethal-injection protocol at issue is not similar to Baze.

Defendants have also cited the Chavez case, but only Judge Carnes—this was an opinion of—with three different judges writing. Only Judge Carnes' opinion endorsed their proposed feasible alternative requirement. There is no such requirement in a case such as this.

If Oklahoma's method is infirm, and it is, plaintiffs need not show an alternative to prevent defendants from inflicting a torturous death.

Now, there are alternatives, of course, but plaintiffs need not promote or show them. For the reasons advanced in our proposed findings and conclusions, supported in our trial brief, and as shown at this hearing, this Court should grant a preliminary injunction. And I would—

THE COURT: Let me ask you a question. Apart from how one might read Chief Justice Roberts' opinion, plurality opinion in Baze, if a prisoner is before the Court having had his full run of direct and collateral review and he takes the position I don't—this is unconstitutional and I don't have [683] to come up with any alternative, is that not essentially a successive writ attack on the sentence itself?

MR. BAUMAN: No, Your Honor, because there are other potential methods available. And, you know, we don't have to show those methods, I don't think, and we have to promote them. There are other methods that exist. There's more than one way of killing somebody.

THE COURT: I'm just supposed to imagine there's some available alternative?

MR. BAUMAN: Well, there are some, and some of them have been I think some potential ones, if the state's theory is correct, it's not, though, they become apparent today, and then there are some in the state statute.

THE COURT: Well, historically, the most foolproof method—and every single method of execution has had mishaps. I think history proves

that. Historically, the most foolproof method is firing squad, and it has had mishaps, but the most foolproof method is firing squad.

So how far—what's the available scope of alternative methods that I have to think about in order to decide whether there is, in fact, an available alternative?

MR. BAUMAN: Our argument is that you don't have to think about any, Judge. You just have to think about whether this method that the state is proposing to execute four people with in the next few months is torturous method. We're not [684] talking about mishaps, Judge. We're talking about a method that doesn't work.

THE COURT: Okay. Taking that on its own terms, if you have successfully established that Chart D is a method that doesn't work and you're not acknowledging any obligation to propose any alternative, why—again, why is that not a successive writ, an impermissible successive writ?

MR. BAUMAN: Because the state itself knows that there are other ways of going at this. We don't have to endorse those ways.

I'll add one thing, Judge. We have said that sodium thiopental has come off patent, so we have pled one.

THE COURT: You haven't proven a thing about any alternative. You have not proven a single thing about any alternative drug. There's been questions that presuppose that sodium thiopental has come off patent; there's no evidence of that. There's no evidence that it would be available, compounding or otherwise, if it has. You haven't proven a single iota of anything about any alternative.

MR. BAUMAN: Judge, we have the case that we have, obviously, but on the point that I wanted to make today is that, under Baze, the plaintiffs don't have an obligation to prove an alternative.

THE COURT: Very well.

MR. BAUMAN: Thank you.

[685] MS. KONRAD: I was going to just wait for rebuttal after Mr. Bauman spoke, but I just wanted to make two points.

One, the—it's uncontested in the answer that the defendant submitted that sodium thiopental is no longer—the patent has expired, so just so you know that.

And it is not a successor writ of habeas, because the plaintiffs are not saying that the defendants cannot execute them ever. They're not contesting their sentence. They're contesting the fact that, under the Eighth Amendment, the defendants cannot execute them in a cruel and unusual manner.

THE COURT: Very well. I'll hear from the defendants.

MR. HADDEN: Just briefly, Your Honor. I wanted to run through just a little bit of the three factors that you had identified to us earlier.

Method A and B, they are massive overdoses of barbiturates. Their expert, Dr. Lubarsky, he was very fond of barbiturates and talked about them to great effect when he was criticizing midazolam, but when I tried to ask him about them, he didn't want to answer.

But the point of that that I'm trying to make is that those are well-accepted, but they're not available. It's

one thing to say that the patent has expired on sodium thiopental, but that does not equal availability.

We could say the patent has expired on any number of

IN THE DISTRICT COURT OF OKLAHOMA COUNTY
STATE OF OKLAHOMA

Case No. CV-14-330

CLAYTON LOCKETT and CHARLES WARNER,

Plaintiffs,

v.

EDWARD EVANS, in his Official Capacity
as the Interim Director of
THE OKLAHOMA DEPARTMENT OF CORRECTIONS and
THE OKLAHOMA DEPARTMENT OF CORRECTIONS,

Defendants.

AMENDED PETITION FOR DECLARATORY RELIEF AND REQUEST FOR INJUNCTION

Plaintiffs Clayton Lockett and Charles Warner ("Plaintiffs"), seek declaratory and injunctive relief, pursuant to 12 O.S. § 1651 against Interim Director Edward Evans and the Oklahoma Department of Corrections for violations of Plaintiffs' due process rights guaranteed by the Constitution of the State of Oklahoma, which violations are unconstitutionally preventing Plaintiffs from vindicating their state constitutional rights against cruel and unusual punishment. Plaintiffs also seek declaratory and injunctive relief for violations of the Oklahoma Administrative Procedures Act, 75 O.S. § 250.3. Plaintiffs further plead as follows:

* * *

requirements of the Administrative Procedure Act and therefore violates the Act. *See* 75 O.S. §§ 250.3(17), 303.

12. On January 3, 2014, the Department of Corrections received an Oklahoma Open Records Act request asking for information about the source of the drugs the Department is currently using for executions. The Department has not responded to that request. Subsequent requests similarly have failed to produce any substantive information about the manner or means by which Defendants plan to execute Plaintiffs.

13. Since 2010, pharmaceutical companies' increasing discomfort with their products being used in executions has drastically restricted the availability of legally obtainable execution drugs. In 2010, Hospira, the only FDA-approved manufacturer of sodium thiopental in the United States, stopped manufacturing the drug in this country.

14. Based on representations made by the Department of Corrections in 2011, in either 2010 or 2011, Defendants began using pentobarbital in place of sodium thiopental to carry out executions.

15. In 2011, Lundbeck, the sole FDA-approved producer of pentobarbital in the United States, began blocking supply of its drug to U.S. corrections departments.

16. Defendants used their last known dose of FDA-approved pentobarbital when they executed Michael Hooper in August 2012.

17. Although the unavailability of sodium thiopental and the restrictions placed on FDA-approved pentobarbital surely required Defendants to revise their execution protocol, Plaintiffs have been unable to

obtain any current information about how Defendants plan to execute them; what drugs will be used in their executions; where,

* * *

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MAR - 9 2015

No. 14-7955

In The
Supreme Court of the United States

Supreme Court, U.S.
FILED
MAR 9 - 2015
OFFICE OF THE CLERK

RICHARD E. GLOSSIP, ET AL.,

Petitioners,

v.

KEVIN J. GROSS, ET AL.,

Respondents.

On Writ of Certiorari to the United States Court of Appeals for the Tenth Circuit

JOINT APPENDIX – VOLUME II (REDACTED)

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Petition For Writ Of Certiorari Filed: Jan. 13, 2015
Certiorari Granted: Jan. 23, 2015

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TRANSCRIPT OF RECORDED INTERVIEW
OF
MIKE OAKLEY
BY
CAPTAIN JASON HOLT
TROOPER KEVIN LOGAN
CASE NUMBER 14-0189SI
ON JUNE 10th, 2014, AT 12:58 P.M.

* * * * *

* * *

[8] MR OAKLEY: [redacted]

CAPTAIN HOLT: Litigated and found to be

MR OAKLEY: Yes,

CAPTAIN HOLT: Proper?

MR OAKLEY: Yes, well

CAPTAIN HOLT: Okay.

MR OAKLEY: Well we had the, the protocol that we had before our pharmacist told us [redacted] wasn't going to sell, it had been appealed to the 10th Circuit and upheld and it had been denied cert in the Supreme Court of the United States. We were gold. . .

CAPTAIN HOLT: Okay.

MR OAKLEY: With that, with that protocol, but we couldn't get the drug.

CAPTAIN HOLT: Okay,

MR OAKLEY: So, back up a little bit. We, we, we couldn't fine Pentobarbital, [redacted] and we also had testimony from Dr. Derschowitz, who was our expert witness who had testified in the Florida case that, that he used this drug to administer sedation, And basically that's the purpose of the first drug is to admin, is to get the inmate sedated. Not to kill them, but just to sedate

* * *

[12] pharmacists. One would have been done it.

CAPTAIN HOLT: Okay. When, when protocols change like that

MR OAKLEY: Yes.

CAPTAIN HOLT: It's going back and forth and there are changes being made, and, and you mentioned that the administrative or the procedure officer at O.H.P. has a hand in it, you have a hand in it, it sounds like the A.G. office has a hand in it . .

MR OAKLEY: Yes,

CAPTAIN HOLT: Who, who has the final say, who's the final ruler on, this is it?

MR OAKLEY: Well you know the protocol itself says that the, the warden and the director are responsible for the protocol.

CAPTAIN HOLT: Mm-hmm.

MR OAKLEY: And so I think that, you know, probably the warden and ultimately the director and in that case, you know, I represent the director.

CAPTAIN HOLT: Mm-hmm.

MR OAKLEY: So it would be, it would be me to decide whether it was all pulled together or not.

CAPTAIN HOLT: Okay,

MR OAKLEY: Yeah, it would be the General Counsel.

CAPTAIN HOLT: So D.O.C., not the AG's office would have the final say in . .

MR OAKLEY: Well, you know, here's the deal. We had testimony from our expert witness, if there was anything, I, I depended on them to have that, because, I, I, they had Dr. Darsworth's testimony, I mean from the Attorney General's office in other states.

[13] CAPTAIN HOLT: Mm-hmm.

MR OAKLEY: I didn't have that. So if there was something about the drugs or administration of drugs that was related to the legal aspects of it, I was dependent upon them. But as far as the mechanics of it, I was dependent upon the warden to tell me, "Mike, that's not, that's not working, that's not going to work." And then I would just have to tell the Attorney General's office, "The warden says that not going to work." So.

CAPTAIN HOLT: Okay.

MR OAKLEY: But as far as the mechanics go, I think the, the warden, yeah, yeah I think the warden would be telling me, "Mike, that won't work." Yeah.

CAPTAIN HOLT: Before we deviate off that, when we talk about Dr. Dershowitz.

MR OAKLEY: Yes.

CAPTAIN HOLT: You talk about his expert testimony, the AG's office got that . .

MR OAKLEY: They, they had transcripts of his, of his testimony.

CAPTAIN HOLT: Okay, so they never met with them face to face?

MR OAKLEY: No, no, no, no, not, not for this revision. [redacted]

[redacted] And so, and as far as the dosage and the amounts that he testified too, he wasn't going to say anything different on the witness stand here in Federal Court that he would have [14] said, and as a matter of fact, they may have, the judge may have even allowed us to introduce that, because it was sworn testimony. So there was really no need, to meet, from a legal perspective to meet with him.

CAPTAIN HOLT: Would the warden have, would the current warden have been consulted on the change of the protocol as far as the drugs were concerned in the March . . .

MR OAKLEY: The drugs.

CAPTAIN HOLT: Time frame.

MR OAKLEY: No.

CAPTAIN HOLT: Do you know if she was consulted at all?

MR OAKLEY: You know; I think that she was dependent on us, the Attorney General's office and my office to, to tell her what we thought from a legal perspective because she knew that the first drug was only for sedation purposes and that's what we were changing is the first drug. The ultimate drug that would kill someone was Potassium Chloride. It was the last drug administered and that was the drug that was in the cocktail to actually render death.

CAPTAIN HOLT: Okay,

MR OAKLEY: And we still had the Potassium Chloride.

CAPTAIN HOLT: Okay. Who, so kind of wrap this part up about the protocol, the three drug protocol and getting this ready for this execution. You, John Haden, Kendi Jones . . .

MR OAKLEY: Jennifer Miller.

CAPTAIN HOLT: Jennifer Miller, anybody else that would have played a part in, in putting this together?

MR OAKLEY: Well I know Seth, gosh what is Seth's last name? I can't remember his last name. He, he was actually, he was the one going over [15] the testimony, he's the one who had the testimony. He, he, he was the assistant over, the assistant over the Attorney General that works for Jennifer.

CAPTAIN HOLT: Okay.

MR OAKLEY: And I know if, I think this was his case.

CAPTAIN HOLT: Okay.

MR OAKLEY: And he was looking for, looking at that testimony. As far as looking for drugs, we were all looking for drugs. Me, Jennifer, Seth, everybody was looking for drugs, so.

CAPTAIN HOLT: In, in the several years up, leading up to this specific execution, the administrative part of the protocol, has that changed much? Or do you know?

MR OAKLEY: No, well there was a, there was a case, and, and I, believe me the cases just kind of run together after all these years.

CAPTAIN HOLT: Yes sir.

MR OAKLEY: But there was a case where we decided to settle the case. We decided to wait for five minutes between the administration of the first drug and to do a consciousness test to make sure that the offender was unconscious and rendered sedated by that first drug, and so there was a, and I cannot remember the case, but there was one case where we was settled that. There was another case where they talked about, well do you have other drugs available? And that's where we built in the redundancy in the system the left arm, the right arm, there is redundancy, twice as many, twice as many drugs are administered to the body and that's when we developed that. And so for, for, to, to change anything regarding the administration of that drug, really was something that you had to look at very, very carefully because it had been litigated.

CAPTAIN HOLT: Mm-hmm.

* * *

[32] Court, they would say, "No." So they went through State Courts and because of that and the

way it worked out because of the way, the the Supreme Court ruled, they weren't getting Stay's the way they thought they were going to get Stay's. So it was a little bit different legally, so there may have been a reason legally for them to be seeking affidavits at that stage, I don't know. But it, no, it had never happened before. We never had an aff, the warden had never had to sign an affidavit saying, "Yeah, I got these drugs and the Chain of Custody was, was proper." No. That, that's nothing we ever did.

TROOPER LOGAN: You had mentioned earlier that you had researched the Midazolam.

MR OAKLEY: Yes.

TROOPER LOGAN: In what ways?

MR OAKLEY: Well, You know. . .

TROOPER LOGAN: I mean we all research kind of in different ways.

MR OAKLEY: [redacted]

TROOPER LOGAN: Okay. You had.

MR OAKLEY: And also, in, [redacted]

[32] [redacted]

TROOPER LOGAN: [redacted]

MR OAKLEY: [redacted]

TROOPER LOGAN: Do you kind of recall at all when that conversation took place? Was it over the phone? Was it in person?

MR OAKLEY: [redacted] So I don't know remember what day it was, but I do remember calling her because I thought, you know, [redacted]

[redacted] And I really felt kind of bad for the warden because she was fairly new, and [redacted]
[34] [redacted]

TROOPER LOGAN: So you mentioned that, she was kind of out of the loop on a lot of this and that, you had also mentioned earlier that she, her and the director, ultimately would, and/or should have had a say so when it comes to change in protocol.

MR OAKLEY: Oh yeah. I think they should have.

TROOPER LOGAN: So going back and looking at the protocol as it was changed, and looking at the drugs when we change, and when you guys changed the protocol here, and I say, "you guys," D.O.C. and the AG's office, do you feel like the warden had any input or do you feel like she was left out of the loop in that?

MR OAKLEY: Well I, I did think, I tried to bring her up to speed, I really did, She, she was not saying, "Oh we need to use Midazolam." No she wasn't. She was saying, "Is this going to do the same thing that Phenobarbital did, and what do I need to know about that," kind of questions. I don't, I feel like she could, I think there was a lot of pressure put on her and a lot of responsibility that she didn't really have the authority, the responsibility without authority. And that happens a lot in agencies, you know, you know that, probably from your own agency. But you know, I don't work there anymore so I can be honest

with you. I feel like, I feel like you know, that's the reason I tried to bring her in a little bit more, and I had to make an effort to do that because things were changing fast. Things changed fast during this litigation. Things changed fast and they changed, I'm sure from the time I left on the 23rd to the 29th. I'm sure they changed several times since then, you probably know better than I do how they changed. So it's, you know, it's one of those things were you had to make a constant effort to try to bring Anita into the loop because decisions were being made, legal decisions, from a legal standpoint were being made where she, [35] she wasn't really brought into all those decisions.

TROOPER LOGAN: Okay, so it would be fair to say, well, let me ask you this, so you had mentioned copies of the protocol, maybe at times you didn't have copies of them would it be fair to say that she never saw a copy of the protocol before it was ever enacted?

MR OAKLEY: I don't, see, well that's possible. I mean, it, it's quite possible that if they changed it after I left, that she wouldn't have, I don't know.

TROOPER LOGAN: Prior to you, prior to leaving there?

MR OAKLEY: Prior to me leaving. No she had to sign the protocol before. She had to sign it.

TROOPER LOGAN: Okay.

MR OAKLEY: We, yeah, she did have to sign it. I, I, I'm rewinding it here a little bit.

TROOPER LOGAN: Yeah,

MR OAKLEY: We, we had to search her down a couple of times to sign it.

TROOPER LOGAN: Okay,

MR OAKLEY: But yeah she had to have, have looked at . . .

TROOPER LOGAN: She had to see it.

MR OAKLEY: To have signed it. Yeah.

TROOPER LOGAN: Okay.

MR OAKLEY: For it to, yeah, for it to be operative.

TROOPER LOGAN: Okay.

MR OAKLEY: So if there, if there, if it was a signed protocol, then she had to have looked at it.

TROOPER LOGAN: Okay.

* * *

* * * * *

TRANSCRIPT OF RECORDED INTERVIEW
OF
ANITA TRAMMELL
BY TROOPER JASON HOLT
TROOPER KEVIN LOGAN
CASE NUMBER 14-0189SI
ON JUNE 2ND, 2014, AT 12:42 P.M.

* * * * *

* * *

[33] any other observations made by any of your staff up until the 29th that you think we should know about or that we haven't asked about that you think are important?

MS TRAMMELL: I mean

CAPTAIN HOLT: Observations they made that they told you about?

MS TRAMMELL: Well it just concerns me about medical and their observation on his – his veins because right off the bat, the EMT, when [redacted] always goes to the left arm and [redacted] looked at it and [redacted] said immediately that you're an intervenes drug user and he said "Yes, yes [redacted] I am," and so how – if [redacted] recognized that; how come they didn't? Don't know. I mean, it's not the first time we've had issues with our medical department on that. And

then mental health, nothing. I mean he just was on a roller coaster and they just documented his behavior.

CAPTAIN HOLT: What – in protocol, it states that it's the warden's duties to determine what drugs are to be used in the – in the execution. What factors in this case for Lockett lead to those three drugs being used?

MS TRAMMELL: The pharmacists that we had had the phenobarbital and there was a lot of issues with Missouri execution and so that the pharmacist that we was using refused to give the drugs to the department. Refused to deal with the department so we were out of – I mean, we couldn't' get the phenobarbital.

CAPTAIN HOLT: Was that between the – the last execution before Lockett and Lockett's?

MS TRAMMELL: Yes. Yes it was.

CAPTAIN HOLT: Okay.

MS TRAMMELL: And that's some of the reasons for the stays, you know, that – that was happening. So in the meantime, the policy was revised with the drug protocols in there. You know, there was several of them listed, I think five or six and [34] they looked at other state's protocols so I didn't make the decision on the drug.

CAPTAIN HOLT: Okay and that's my next question. What – what other agencies play a role in

preparing for an execution and – and what is their role?

MS TRAMMELL: I – I – all I can say is that I didn't write the policy. I don't know anything about the drugs. I was just – I'm told the drugs that's gonna be used. I didn't pick the pharmacist – pharmacy. Didn't even know which pharmacy it was till it was determined. So I'm not sure how that – how we even secure the pharmacist.

CAPTAIN HOLT: Okay, Does that come from another agency?

MS TRAMMELL: I don't' think so.

CAPTAIN HOLT: You think that come . . .

MS TRAMMELL: I don't but it possibly could.

CAPTAIN HOLT: Okay. What other agencies – are there any other agencies that play a role in preparing for an execution other than D.O.C.?

MS TRAMMELL: Yes.

CAPTAIN HOLT: What agencies are those?

MS TRAMMELL; The Attorney General's office.

CAPTAIN HOLT: Okay.

MS TRAMMELL: I mean they're – they're instrumental with the victims. They have a couple of staff that bring the victims down. Of course they deal

with courts as well, Court of Criminal Appeals and so they're involved if there's gonna be a stay or of there's any question on the legality of the execution as far as if we may have a stay.

CAPTAIN HOLT: Okay. We'll come back to that.

MS TRAMMELL: And they were involved in writing the addendum. They, helped with that, provided assistance with that.

CAPTAIN HOLT: Okay. We'll come back to that. Let me – let me move on and we'll move on and we'll come back to that in a little while. The – you say the

* * *

[25] try real hard to get the vein.

CAPTAIN HOLT: Mm-hmm.

MS TRAMMELL: You know how painful that can be so I was really proud of him for that.

CAPTAIN HOLT: Do they ever ask – they, being the doctor or the EMT – do they ever ask your input about what – what to do while they're trying to find a vein?

MS TRAMMELL: No, no.

CAPTAIN HOLT: Okay.

MS TRAMMELL: And like I said, I try to stay out of their way. 'Cause then, by this time, you

know, it started at 6:23 so kinda lost track of time, but it was getting closer to – for time to start.

CAPTAIN HOLT: Mm-hmm.

MS TRAMMELL: So I thought I gotta stay out of their way and let them do their job. Well when they were working on his neck, they cut his – his – it was a – what do they call – scrubs? And they had cut that, you know, so they could get to it. Had it pulled down and then, then they said they were gonna go to the groin area. So he had on scrubs with an elastic waist band. They cut that on both sides and pulled that down or kinda laid it over and the doctor originally was working on the left side. Couldn't get it and there was blood everywhere, couldn't get it and it looked like to me – I was still sitting down – it looked like [redacted] was kinda jabbing, trying to get that vein. That's how it looked to me, or poking and so then seems like [redacted] was on the right side, but again, I'm not 100%, but [redacted] ended up on the right side and [redacted] found it. [redacted] did that and so [redacted] got it and then, you know, we watched that drip. And I did get up and go look at the drip and [redacted] looked at the drip and I'm pretty sure the doctor did as well. [redacted] was back there in the back and [redacted] knows a lot about the steady flow and [redacted] said it "looks good, looks good." And so I went back there and [26] looked and we – we monitored that for a while.

CAPTAIN HOLT: Okay.

MS TRAMMELL: And actually we had a conversation about this the next day because time, it

was hard to measure time during this period and [redacted], which you guys interviewed, [redacted] thought that we monitored for 15 min. I don't know if [redacted] told you that. That sounds like an awfully long time. I don't think we monitored it that long but we did monitor for a while until they felt comfortable. They meaning the doctor and the EMT. That – that we had a good vein.

CAPTAIN HOLT: Which – which [redacted] said he thought it was 15 minutes?

MS TRAMMELL: [redacted] [ph. sp.]

CAPTAIN HOLT: Okay,

MS TRAMMELL: And [redacted] was just observing. That was [redacted] first time to be in there.

CAPTAIN HOLT: Okay,

MS TRAMMELL: So when [redacted] told me that the next day, I thought I don't know. That seems like an awful long time, but anyway. So they – they went back, after they, everyone felt comfortable in the drip. You know, the steady flow and [redacted] put the covering over the, you know, the needle and all of that and covered him back up.

CAPTAIN HOLT: Who makes the final decision in that room, who's responsible for the final decision of IV placement? Of – of where that is to go if they're having trouble like that?

MS TRAMMELL: I would have to look and see exactly what the policy says. I mean, ultimately

what happens in there I guess is my responsibility but I – I wouldn't know about going to the groin area. I mean, I thought the final – if all else fails you could do the cut down. 'Cause I thought that was fool proof that you do a cut down [27] and you're – you know, you're in.

CAPTAIN HOLT: Okay.

MS TRAMMELL: So when I see that I mean I was . . .

CAPTAIN HOLT: Who made the final decision for Lockett? Was it the doctor or the EMT or yourself?

MS TRAMMELL: I – I'd probably say all three of us.

CAPTAIN HOLT: Okay.

MS TRAMMELL: In – in collaboration on it.

CAPTAIN HOLT: Okay,

MS TRAMMELL: Because I felt comfortable that – I mean I didn't feel comfortable any through that whole process as it progressed because it was just -- I was just getting nervous about what all I was seeing and the difficulties that they were having.

CAPTAIN HOLT: Okay.

MS TRAMMELL: So . .

CAPTAIN HOLT: Who – who made the decision to cover the insertion sight?

MS TRAMMELL: I did.

CAPTAIN HOLT: Did – did they ask you? I mean, is that something that they ask you? Is that a statement you made? How was that decision made?

MS TRAMMELL: I – I don't think it was a deliberate decision. It was just an automatic decision. I mean, you know from where they put that at you could see his privates. You know, I – hindsight if we talk about that, I'll address that . . .

CAPTAIN HOLT: Okay.

MS TRAMMELL: . . . at some point if you want to, but I guess – I guess you could say it was mine.

CAPTAIN HOLT: Okay. Go ahead and finish walking me through from now [28] they have the IV started till the end of the process. Walk me . . .

MS TRAMMELL: Okay,

CAPTAIN HOLT: through that part.

MS TRAMMELL: SO we have – so you can see that there's staging people from H unit up into the chamber. Everyone that's gonna – I mean, you know you could kinda see shadows and that sort of thing and so normally there's, I've had up to 30 minutes to talk the offender about the process and didn't have much time. But I went over there and I

was talking to him. That's when he said his mouth was so dry and you could tell. It was all crusted over and I told you what I did.

CAPTAIN HOLT: What – what do you mean?

MS TRAMMELL: Well I – I wiped his mouth. He asked for that. I wiped his mouth off and then just tossed that Kleenex in the floor which you guys got that.

CAPTAIN HOLT: Okay.

MS TRAMMELL: Remember? But I talked to him a little bit about the drug, what I knew about it. You know, this – it wasn't like the other drug. It was gonna be a slower process and where his attorneys were gonna be at about him making a last statement. He said he wasn't gonna make one and you know, I just didn't have a whole lot of t-time to talk to him because it was way after 6 by then. So after that, the director gets on the phone and they hand the phone to me and he said "We're gonna let the execution begin." I said "Okay." So I walked back over and you know, – of course everyone knows and I told them "Raise the shade" and [redacted] did and [redacted] turned the mike on and look out there and there's so many people. Every seat was full and I – I kinda turned a little bit so [redacted] could see me. I said "Let the exe" – or – no, I – asked the offender if had any – a statement. And I said "Mr. Lockett, do you have a statement that you'd like to make?" And he said "No." And that's all he said and so I turned and said let the

execution process begin and started. Of course I looked up [29] at the clock, or I think I did, I always like to because the 5 minutes standing still is a long time. Let me tell ya. It was a long time and I don't like to look up and down or look out and see who is out there. I don't like to do that. Director Jones, when he was here, he told me it was best just not to. My first execution, those attorneys for the offender was just boo-hooing and crying so I made it a point just to watch the arm. Of course, I wasn't able to with Lockett, but I was watching his face and his expressions and nothing was happening. I mean nothing was happening. Nothing. You know, he was trying to be real patient, it was obvious. He was laying there with his eyes closed and I mean, it just looked like nothing was happening for a while. And then he'd open his eyes and he'd kinda look around and at one point he looked over at me like what – what's taking so long and mean, that's just the expression he gave me and – of course then he started, he closed his eyes and his breathing slowed down just a little bit but I mean, I knew he was still conscious at that five minutes mark when the doctor got up. You know, the light went, goes off and the doctor goes and checks him. You know it was apparent. It was apparent he was still conscious so I – I stated that. I think I said "The offender is still conscious," and so – they didn't do anything and they set the clock again. And when it went off again, the doctor ge – and between that time then his breaking did slow down and you know, his chest wasn't rising quite as much and his face looked like it was getting more relaxed. With the old drug,

the phenobarbital, the offender quickly would take two deep breaths. I mean real quick into and kinda make a snoring sound and the – they just kinda look like they're in a really deep sleep. And then next their color starts changing to ash and then kinda greyish and then they're gone. And that wasn't anything like this drug. At all. But anyway, after the second – after the five-minutes between the five and the next –the – the newspaper said three minutes but we had scheduled for two – but when [redacted] got up again [redacted] said he was unconscious and so I stated that and that's when they started pushing the second [30] drug and – let me look right here, my notes. 'Cause when I wrote this up – the first the I noticed, of course I was watching his face and I was watching his face and I was looking at his chest and everything looked like after he was unconscious, it looked like everything was going okay, just really slow. And then he moved his mouth side to side like that and I thought, that's odd. You know 'cause I've never seen that before. Just kind of twitching to the side. I thought that's odd. And then a little while I – later, and I don't know time frames, but he started shaking, quivering. You know, just all over and I didn't know what to think about that. Just all over and then after that, it looked like he – and his eyes were closed the whole time. Well at some point maybe – maybe before he started quivering, he mumbled something like an odd sound. Odd and then he raised, try to raise his hands and his feet and his head up and we – he did. He raised his head up and at some point he said something and the media said that he said something's wrong. I don't

know if that's what he said or not. It was just something that I recognized. I thought he said something but I can't remember exactly what it was because I was just – you know inside I didn't know what to – I mean, I was kind of panicking. Thinking oh my God. He's coming out of this. It's not working and so he did that and I wasn't sure where the director was sitting at out there, but I looked up to look for the director and he was sitting directly in front of me. So I looked at the director hard like gimme some, you know gimme some pointers or give me some advice and he looked up at the clock, the director did. So I looked back down at Warner, I mean Lockett and he did it again. I looked back up at the director and I knew some – it was going south. Something was definitely wrong cause I thought he was coming out of it and he – it seems like he did a third time, but I can't say that for certain, as far as raising up – but I looked over at the doctor and the doctor was looking at me like something's wrong so I motioned for the doctor to come up and [redacted] looked under there and then [redacted] whispered something in my ear to the affect that [31] the drugs not going into his vein or it's something along those lines. And so, I made the decision to lower the curtain and I – you know, one of the things I should've done is said something. That we had a malfunction with – with the drug or with the vein but I don't know if I said anything. I think I started to say something and it just didn't come out but I should've said something and that would've helped this process. But anyway, we lowered the shades and I have [redacted] I said "I need to talk to the

director. Get the director on the line." Of course, all those people were still sitting out there so it took [redacted] a minute and I guess the director walked out to get on the phone to have a private conversation. So he asked the questions about is there enough drugs – well I told him about, you know, it wasn't going into the vein and so he asked the questions, I don't know exactly, about is there enough drugs to kill the offender. I don't know if used the word kill or not but – and I asked the doctor and [redacted] repeated back "No," and then I said is there enough drugs to – or first question, did he absorb enough drugs and the doctor said no. Then the question was is there enough drugs left and so the EMT kinda went like this and – and the doctor said no. And the director said that's not what I asked. I asked if there was enough drugs absorbed or not absorbed but into his system to, for him to die and the doctor said no. So I told the director that and he said – I don't remember exactly what he said. Hold on or something. So he come back in a little while and – and they were working on the offender, not to revive him. They were working on to check veins and – and see if there was another vein or something else they could do to continue with the execution and then the director come back on and he said stand down maybe? Or hold – we're going to stop the execution. I think that's the words? Or stand down. He used a term that I'm not used to in Oklahoma. Maybe stand down 'cause I've heard him say that before on something, but anyway I said "Do you mean to – to stop?" He said yeah. Which there – I mean, we had already stopped because we wasn't able

to do anything [32] but the doctor was saying "I don't know if there's enough drugs. How am I supposed to know if there's enough drugs to absorb?" But the doctor did say that it looks like it was absorbing into his tissue, you know. The doctor was kind of [redacted] was pretty frustrated. I think [redacted] got frustrated with me but you could tell I mean, after lowered the blinds – and I went back and asked my staff the next day. I said "you know, I do not remember seeing that offender raise up or do anything else after we lowered the blinds." And they said "He didn't." I said I don't recall him doing anything else. So maybe if we had just kept the blinds up, it would've still taken to 7:06, but it's neither here nor there because we did lower the blinds. But he didn't – he wasn't raising up or doing any more of that. But the doctor, I mean, the EKG was, [redacted] was monitoring it and [redacted] was checking his heart and all of that and [redacted] said his, each time [redacted] said his heart beat was getting more faint each time. And I said "Are you gonna call it?" [redacted] said "Not yet." So I asked [redacted] that a couple of times and [redacted] got pretty frustrated with me. [redacted] said "Not yet. I will tell you when I'm gonna call it." So it wasn't like at 7:06 he just died. It's not like at 7:06 he had a massive heart attack and died. He was dying the whole times in my opinion, he was dying the whole time. It was just taking a lot longer because it was absorbing into his system instead of going directly through his vein.

CAPTAIN HOLT: Okay. Can you – lets start here. Can you just write down where once –

once the IV is inserted, can you just write down where everybody was standing at as the drugs were being administered?

MS TRAMMELL: Want me to just write their name or . . . ?

CAPTAIN HOLT: That's fine. Yes that's fine. Except for the – just put physician for physician, EMT . . .

MS TRAMMELL: Okay. [redacted] was back here in this corner and [redacted] had the little remote for the blinds and then the – the mic was right here in this area and

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[61] MS TRAMMELL: That's my mistake for not checking on the IV. It's the department's mistake for not having another plan in place. Which we had the cut down. I thought that was, you know, foolproof. I mean I thought you cut down and you – I mean I've never seen a cut down, but . . .

CAPTAIN HOLT: Is it your opinion that a cut down was done.

MS TRAMMELL: Yes.

CAPTAIN HOLT: Okay.

MS TRAMMELL: Cause [redacted] opened the kit and [redacted] was up there working on him.

CAPTAIN HOLT: Okay.

MS TRAMMELL: I mean [redacted] may have told you something different.

CAPTAIN HOLT: Did .

MS TRAMMELL: Cause I heard [redacted] say "I can't get it. I can't get it"

CAPTAIN HOLT: What other mistakes would you say that – that you, as the warden, made?

MS TRAMMELL: Was not – the mistakes I made was not researching the drugs. Relying on my legal department and the AG's office like I did to just sign in a policy when I didn't write the damn thing. Just trusting and not – I mean – just – just taking, just accepting ownership for something this big without the department's support. Except for this new director.

CAPTAIN HOLT: How about in the execution chamber itself. Would you say that anything was . .

MS TRAMMELL: Yes, you know, I should've done something different with, you know, what I could've done instead of. I mean I think I needed the sheet on him cause you would have seen his privates, but the d – I could've put the doctor over there beside him. Move that EKG where [redacted] could raise it up – where [redacted] could watch

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TRANSCRIPT OF RECORDED INTERVIEW
OF
ANITA TRAMMELL
BY
CAPTAIN JASON HOLT
TROOPER KEVIN LOGAN
CASE NUMBER 14-0189SI
ON JUNE 2ND, 2014, AT 3:44 P.M.

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[11] it and we mailed it back and then there was some more correspondence. And then on 4/11 I was off with [redacted] and I was on the phone a lot with work that Friday, which I dunno what day that was, 14th. I was off out at my parent's. I was mowing and weed-eating. Went and checked my phone there was calls at 3:30 from the facility. So I called the facility and it was Regina. The AG's office, according to her – well Mike, he was off too, wanted me to come in and sign this revised policy on a Friday afternoon and I said no. I'm not going up there. I just signed one policy so I figured I was gonna get my hand slapped Monday, but I didn't. No on even knew anything about it. So Monday, I got the policy. It was revised for the second time, you know, there was a mistake and the mistake was the dosage of the Midazolam and you got that.

CAPTAIN HOLT: Mm-hmm.

MS TRAMMELL: And so I signed the damn thing. I did not write that policy. I did not choose those drugs.

CAPTAIN HOLT: Okay.

MS TRAMMELL: I didn't know – I didn't know anything about the drugs.

CAPTAIN HOLT: Okay. So, Mike Oakley was the representative from the D.O.C. that was involved in that process. Do you know who from the AG's office he was meeting with?

MS TRAMMELL: That I don't know.

CAPTAIN HOLT: Okay. You want me to follow on that part before we –? One of the final parts I wanna make sure that we clear up is the – the stop of the execution. I understand that – that you said earlier that the director told you to stop, halt, stand down, whatever – whatever that conversation was. I just wanna ask, and I think we've answered it so, but I'm just gonna ask again so we can make sure that we clear it up. Why was life saving measures not given to Lockett after the

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TRANSCRIPT OF RECORDED INTERVIEW
OF
DIRECTOR ROBERT PATTON
BY CAPTAIN JASON HOLT
TROOPER KEVIN LOGAN
CASE NUMBER 14-0189SI
ON JUNE 3RD, 2014, AT 9:40 A.M.

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[6] CAPTAIN HOLT: Okay. Um, How long does it take, how long does it take for them to determine how they're going to proceed. So from the time that they, you've got the stay issued, how long is that process before they decide okay, here's what we're going to use and we can find it?

DIRECTOR PATTON: They began searching for another pharmacist at that time. Uh, I found out that they had found a pharmacist and the drugs, uh through a news report. That is how I found out

CAPTAIN HOLT: Okay,

DIRECTOR PATTON: [redacted]

CAPTAIN HOLT: Okay. You say he or are you referring to Mike Oakley?

DIRECTOR PATTON: I am referring to Mike Oakley.

CAPTAIN HOLT: Okay, So, Mike Oakley in the AG's office is who worked to find the new pharmacist and the new drug protocol, what was the drug set to be before that March stay?

DIRECTOR PATTON: It was a three drug protocol, uh it was pancuronium bromide

CAPTAIN HOLT: What was the drug that was changed?

DIRECTOR PATTON: And it was changed to midazolam.

CAPTAIN HOLT: Okay. So the first drug that is used, not the other two, the last two are made the same, just the first drug?

DIRECTOR PATTON: changed to midazolam from what they were using before which was pentobarbital or pancuronium bromide

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TRANSCRIPT OF RECORDED INTERVIEW

OF

DIRECTOR ROBERT PATTON

BY CAPTAIN JASON HOLT

TROOPER KEVIN LOGAN

CASE NUMBER 14-0189SI

ON JUNE 3RD, 2014, AT 11:07 AM

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[5] protocols in the current DOC protocol for executions.

DIRECTOR PATTON: Yes.

CAPTAIN HOLT: Do you know how the decision was made to use the specific one involving the midazolam and not one of the other two, or however many are in the current protocol?

DIRECTOR PATTON: [redacted]

CAPTAIN HOLT: In your media briefing that you had after, that night after the execution, you used the term 'exploded'.

DIRECTOR PATTON: Mm-hmm.

CAPTAIN HOLT: Medically do you know what happened with . . .

DIRECTOR PATTON: No I do not.

CAPTAIN HOLT: . . . Clayton Lockett?

DIRECTOR PATTON: I do not,

CAPTAIN HOLT: Okay. Um . .

DIRECTOR PATTON: The terms I used that night was what was described to me over the telephone.

CAPTAIN HOLT: Okay, What – in any meetings that you have had since the day of the execution.

DIRECTOR PATTON: Mm-hmm,

CAPTAIN HOLT: . . has DOC made any conclusions about what they think went wrong with this execution?

DIRECTOR PATTON: I've been very careful, as my general counselor can testify to, every meeting that we've discussed executions, my statement to staff is very simple. It's under investigation. At the conclusion of the

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[13] Warden.

TROOPER LOGAN: Okay.

DIRECTOR PATTON: But, if you ask the Warden that question, she will tell you she was told what protocol to use.

TROOPER LOGAN: Okay. Do you know who she was told by?

DIRECTOR PATTON: It is my belief, the General Counsel, Michael Oakley, and again, as I've stated earlier, Mike Oakley said this is a decision made by himself and the AG's office, Mr. Hadden.

TROOPER LOGAN: Okay.

DIRECTOR PATTON: But I do not believe the Warden actually chose the protocol.

TROOPER LOGAN: Based upon your understanding, you feel like she was relying on Mike Oakley and the AG's office?

DIRECTOR PATTON: [redacted]

TROOPER LOGAN: Okay,

DIRECTOR PATTON: [redacted]

CAPTAIN HOLT: It's our understanding that they did some vein checks of the offender several days, several times up until that day, were you ever briefed on the results of any of those?

DIRECTOR PATTON: No, sir, I was not.

CAPTAIN HOLT: Have you been briefed since the execution on the results of those?

DIRECTOR PATTON: No, sir, I have not.

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TRANSCRIPT OF RECORDED INTERVIEW
OF
ILINDA JACKSON
BY
TROOPER MATT GOTTSCHALK
CASE NUMBER 14-0189SI
ON MAY 14th, 2014, AT 9:38 AM.

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[14] over at 6:10 that perhaps it's over and we've missed it

TROOPER KRAFT: Yeah.

MS JACKSON: So he, they started checking and it hadn't started, we didn't, we didn't know that it hadn't so we just surmised nobody told us that it hadn't started.

TROOPER KRAFT: Yeah.

MS JACKSON: But we figured out oh, it's delayed something's wrong something hasn't happened yet, so at 6:17, 6:18 about 6:20 so in between 6:20, 6:23 the TV comes on and we began to watch the process. The warden asks to have any last words Lockett said no, and she said let the execution begin. And I stood up to watch because I was just interested – I couldn't, I couldn't tell from the seat ya know, I

wanted to know how the drug moved, I wanted to know if it was as fast and that was the purpose in me getting up.

TROOPER KRAFT: Yeah,

MS JACKSON: And what I noticed immediately was that he was blinking his eyes, he kept doing this, he kept kind of yawning and making faces really yawning or whatever. And we both, me and Edith sort of looked at each other and said is that's unusual, ya know, we sort of looked and thought hmm, that's different.

TROOPER KRAFT: Yeah.

MS JACKSON: And, you know, he kept doing that and kept doing that for a while which I didn't, I didn't there's no clock in there and then eventually the medical examiner stood up. It looked like he had become very still which is the normal process after [redacted] says let the execution begin within a minute the offender doesn't move with the previous drug. With this drug he moved his head back and forth ya know, this kind of stuff. But finally he's still there's no movement and so I don't know how many minutes had passed but [redacted] got up and [redacted] checked his eyelids [15] both eyelids; the left, the right. And then as [redacted] pulled the sheet back to put the thing to check his heart [redacted] said he's unconscious and [redacted] walked away. As [redacted] was walking away or as [redacted] was moving away the offender said this blank is f-ing with me, which is extremely unusual and . . .

TROOPER KRAFT: Go ahead and say it, what did he say?

MS JACKSON: This shit is fucking with me, is what I could make of it. It was kind of gargled but that's what it sounded like. And then, he began to move his head at that point back and forth and began to try to get up off the gurney. Now the reporter said he was convulsing but I kept replaying that in my mind and kept thinking of children I've seen that have had that and it doesn't go from the head forward, it's the head is – everything limp and the body is doing it's own thing but he was fully in control of that so in my opinion I thought he was trying to get up.

TROOPER KRAFT: Yeah.

JACKSON: thought he was fighting the process and was trying to get up.

TROOPER KRAFT: Now was he covered with a sheet?

JACKSON: He was covered with a sheet. He's strapped, you can't see – you know that he's strapped because of how still this is, his arms are this way, strapping's are this way, strapping's are at the bottom.

TROOPER KRAFT: Can you see any IV's anything like that?

MS JACKSON: Well, at one point no, not really. At one point the doctor did get up and walk

over and pull the sheet back to check but you couldn't really see what, just what. And then a few moments later the warden says stop the execution or whatever she said, I don't, I didn't make it, make that out as well. But the curtains came down, the curtains may have came down as she was saying it but they brought the curtains down and we were probably there not even another minute before they

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TRANSCRIPT OF RECORDED INTERVIEW

OF

[redacted]

BY

CAPTAIN PAUL CHRISTIAN

AND CAPTAIN DAMON TUCKER

CASE NUMBER 14-0189SI

HELD IN THE US FEDERAL COURTHOUSE

ON MAY 20, 2014, AT 1:20 P.M.

IN MCALESTER, OKLAHOMA

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[89] CAPTAIN CHRISTIAN: – you know, IV in. Is this – does [redacted] – is [redacted] like an EMT or paramedic or something that? Seems like we read that somewhere.

[redacted] I read that it was EMT but I don't know,

CAPTAIN CHRISTIAN: Okay. Okay. Okay. So does the – the phlebotomist and the doctor stay out here the whole time?

[redacted] Yes.

CAPTAIN CHRISTIAN: Okay. Until Lockett passes?

[redacted] Yes,

CAPTAIN CHRISTIAN: What happened during that time period? Anything?

[redacted] Not really. I mean, like I said the doctor just kept running back and forth from his – from his head area to the monitor just to see if he was – had passed yet. It took a while for him to pass, but –

CAPTAIN CHRISTIAN: So nobody did lifesaving measures on him at all?

[redacted] No.

CAPTAIN CHRISTIAN: Nobody even, did – I guess it was considered by the Warden,

[90] because she asked the question, but nobody felt like they could do anything about it?

[redacted] No.

CAPTAIN CHRISTIAN: Was there a conversation between the doctor and the phlebotomist about that?

[redacted] About the lifesaving measures?

CAPTAIN CHRISTIAN: Uh-huh.

[redacted] Not that I recall.

CAPTAIN CHRISTIAN: And then eventually he was pronounced dead. How – how did –

[redacted] Yes

CAPTAIN CHRISTIAN: – all that happen?

[redacted] kept going back and forth to [redacted] monitor and I don't remember exactly [redacted] words on the monitor activity, but [redacted] said something about the monitor activity and then I guess it kept getting to where he would – where he was passing away. And finally the doctor said, well, he's getting closer or something like that. And the Warden asked [redacted] if – told [redacted] that, you know, you have to give me a time if he does – you know, time of – pronounced death.

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TRANSCRIPT OF RECORDED INTERVIEW

OF

[redacted]

BY

CAPTAIN PAUL CHRISTIAN

AND

CAPTAIN DAMON TUCKER

CASE NUMBER 14-0189SI

HELD IN THE US FEDERAL COURTHOUSE

ON MAY 20, 2014 AT 3:35 P.M.

MCALESTER, OKLAHOMA

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[89] [redacted] The second drug was fine, I think.

CAPTAIN CHRISTIAN: Okay.

[redacted] I think. Third drug is when we started to see something.

CAPTAIN CHRISTIAN: Issues? Okay.

[redacted] Yes, sir.

CAPTAIN CHRISTIAN: Walk us through that.

[redacted] Squirming in the bed.

CAPTAIN CHRISTIAN: He – Lockett?

[redacted] Yeah.

CAPTAIN CHRISTIAN: Okay.

[redacted] He mumbled something. I'm not too sure what he mumbled, but he did mumble something.

CAPTAIN CHRISTIAN: Okay. Explain his movement. Was his movement more passive-like or – I don't know what the exact word would be – or was it aggressive violent-type?

[redacted] Hmm. I think he was trying to get up out of the – out of the – and we had him strapped down and taped down and wouldn't let him. Arching his back.

CAPTAIN CHRISTIAN: Okay.

[90] [redacted] You know, I guess to an extent you could say it was aggressive. I guess. I mean, like I said we never used this stuff before so, you know, I – I don't know, I don't – he tried to get up. In my opinion he tried to get up, because it floored me. You know, after several times, Doc had a concerned look on [redacted] face, looking at the EKG, looking at the clock up here.

CAPTAIN CHRISTIAN: Uh-huh.

[redacted] Doc gets up. I can't remember if that was before the blinds were shut or after. I think it was before. Looks at him and said

there's a – I think it was a problem. Warden shut the blinds – or, no. They tried to work on him, I think, first and then they shut the blinds.

And what I was saying about the drugs, at some point Doc had taken that out at the – towards the end – towards the – after the blinds were shut. Doc had taken that IV line out so I told them to stop pushing. I mean we couldn't push it anywhere else.

CAPTAIN CHRISTIAN: Right.

[redacted] But they were still [91] pushing up until we were told, you know, until he took it out.

CAPTAIN CHRISTIAN: Okay.

[redacted] The IV line.

CAPTAIN CHRISTIAN: There was no communication from the executioner in the back room to stop pushing the drugs?

[redacted] Not at that point, no. Not at that point. You know, I'm looking out the window here. I didn't see any puddles or anything out of the ordinary that would indicate there was something wrong. You know.

CAPTAIN CHRISTIAN: Okay.

CAPTAIN TUCKER: Let me back up just a minute. So after he was declared unconscious you start – that's your signal when the Warden says he's unconscious –

[redacted] Yes, sir.

CAPTAIN TUCKER: – that's your signal to have the executioners start pushing the second?

[redacted] Second and third one, yes, sir.

CAPTAIN TUCKER: Second you'll – you'll do the first – syringe of the second

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[95] anything to do with – okay, start this. Now do this. That's the EMT's job to do that.

[redacted] No. Just – I –

CAPTAIN TUCKER: Next in line is –

[redacted] – my thing is, start.

CAPTAIN TUCKER: Okay.

[redacted] And then five minutes, flip the light and then with this particular thing, when we had the different checks – just like I said, the phenobarbital, it's usually done, and you're done with this one. We wait the two minutes, he was finally unconscious and start – then start the next one.

CAPTAIN TUCKER: When did you see him start to move between what series of drugs? Do you know, or was this during the pushing of the second and third drug?

[redacted] It was the third drug in between the – during the third drug for sure, but I

couldn't tell you if it was during the second at all, I can't remember. But I know the third drug for sure. I don't know if it was in between or during the second. I can't remember that.

[96] CAPTAIN TUCKER: Okay. Okay. Go ahead.

[redacted] Like I said then the Doc come over here to the side that the IV was inserted in the groin area and there was no kind of puddling – you know, people saying it leaked out – or if it did it went in the body. I don't know I'm not the doctor so I wouldn't know. But there was nothing on the floor or anything like that. But you were asking before if all of them went in – if all of the drugs went in. There was probably a little bit left in one of the two of them when we stopped. I mean we – you know, if they would have found another vein we would have kept going. But that – that was – there was a little bit. I couldn't tell you how much.

CAPTAIN CHRISTIAN: On the third one?

[redacted] On the third one, yes, sir.

CAPTAIN CHRISTIAN: So the EMT is responsible for handing over each one of these syringes to each executioner every time they need them? One's a drug, then one's a saline,

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[99] actually stop pushing the drugs?

[redacted] When [redacted] took that line out. We all already knew –

CAPTAIN TUCKER: You visually saw [redacted]?

[redacted] Yes, sir. Uh-huh. Yes, sir.

CAPTAIN TUCKER: Okay.

CAPTAIN CHRISTIAN: Okay. So you were still – even though the curtains were dropped, you guys were still pushing drugs until [redacted] pulled the IV?

[redacted] Yes, sir.

CAPTAIN CHRISTIAN: Okay.

[redacted] Yes, sir.

CAPTAIN CHRISTIAN: So she – she – no one ever gave you – I'm assuming the Warden – Warden Trammell, but nobody gave you guys any instructions to stop after the curtains were dropped. They just – what were they doing in the execution room – while you guys are still pushing drugs and the curtain's coming down, what's –

[redacted] They were checking him and they were on the phone and –

CAPTAIN CHRISTIAN: But at that point

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[108] CAPTAIN TUCKER: [redacted] you said when the – when you saw the doctor remove the

IV or the line from the – the IV from the line, did you verbally tell the executioner, hold what you're doing [redacted](inaudible).

[redacted] I – stop.

CAPTAIN TUCKER: Stop.

[redacted] Uh-huh, And [redacted] did. Yeah.

CAPTAIN TUCKER: And they did?

[redacted] Yes, sir.

CAPTAIN TUCKER: Is that when the EMT came out?

[redacted] Yeah. In a minute or two. You know, by the time we got rearranged in there and they come out, yeah.

CAPTAIN TUCKER: Okay. From – while you guys are in the back room, and I'm specifically speaking of the back room there – you, the executioners, and EMT, is there any comments or anything about – that you guys are in discussion – you guys are having about, like it was taking longer or do you guys communicated as a (inaudible)?

[redacted] No. The only thing –

* * *

[131] signed.

CAPTAIN TUCKER: Okay. I want (inaudible).

[redacted] Because I was [redacted] that day, so I know.

CAPTAIN TUCKER: Okay. So just so I'm clear on this last comment you made.

The Attorney General's office rewrote your policy or your – your legal division did?

[redacted] I – I'm – I'm saying the Attorney General's office did.

CAPTAIN TUCKER: That's your opinion (inaudible)?

[redacted] Yes, sir. My opinion and – and I don't know for sure, but that's my opinion.

CAPTAIN TUCKER: And were you involved in this process of rewriting it or did they basically produce it to you and tell you to go get it signed?

[redacted] They –

CAPTAIN TUCKER: How did that process take place?

[redacted] As far as – I got a [132] phone call; the Warden needs to sign this and it was scanned, or whatever, to us and we went and got it signed. Or they called our procedures officer which writes the policies and told her what to put in it and she put it in and then had – let them review it. They said it was okay, and then we had it signed.

CAPTAIN TUCKER: So you had – did you take it over to the Warden or did a staff member?

[redacted] No. I had a staff member.

CAPTAIN TUCKER: And she signed it –

[redacted] I believe so.

CAPTAIN TUCKER: – and then what happened after that?

[redacted] It was sent back to them and that was – they said we're going to use.

CAPTAIN TUCKER: Okay.

[redacted] Because there's five different methods in that policy now.

CAPTAIN TUCKER: Yes. I read those.

[redacted] Yes, sir. And there didn't used to be. It was just was the phenobarbital.

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TRANSCRIPT OF RECORDED INTERVIEW
OF
JOHN HADDEN
BY
TROOPER MATT GOTTSCHALK
TROOPER DONALD KRAFT
CASE NUMBER 14-0189SI
ON MAY 15th, 2014, AT 9:39 A.M.

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[2] **LEGEND:**

MR HADDEN: **JOHN HADDEN**

TROOPER GOTTSCHALK:
TROOPER MATT GOTTSCHALK

TROOPER KRAFT:
TROOPER DONALD KRAFT

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TROOPER GOTTSCHALK: Alright today's date is May 15th, 2014; time is 9:39 a.m. Present in the room is Trooper Donald Kraft and myself, Trooper Matt Gottschalk, spelling M-A-T-T, G-O-T-T-S-C-H-A-L-K. This is an interview with Mr. John Hadden. Mr. Hadden, if you could please state and spell your entire name for me please.

MR HADDEN: My name is John David Hadden. First name J-O-H-N, middle D-A-V-I-D, last H-A-D-D-E-N.

TROOPER KRAFT: Also Trooper Donald Kraft. D-O-N-A-L-D, last name is K-R-A-F-T.

TROOPER GOTTSCHALK: Okay, Mr. Hadden, are you aware that this interview is being recorded and may be reduced to a typed official record at a later time?

MR HADDEN: Yes, sir.

TROOPER GOTTSCHALK: Okay. This interview is being conducted pursuit to case, number 14-0189SI regarding the execution that took place at the Oklahoma State Penitentiary on April 29th, of 2014. Mr. Hadden, what's your current home address?

MR HADDEN: My current home address is [redacted]

TROOPER GOTTSCHALK: Okay.

MR HADDEN: Just as a point of clarification, it's a rental because my house was hit in the tornado last year so . . .

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[14] minutes they normally do a consciousness check so mean that'll give me an idea about where we're at. But it was going a little while and he was just – everyone in a while he sort of lick his lips like he was trying to regain focus or something so I'm thinking to myself well, he must be getting something because he's obviously exerting some effort to maintain consciousness. And I want to say it around four minutes, four and half minutes or so he closed his eyes and his

jaw went a little slack as if he was asleep or something. And then the person in the chair and that's when I decided [redacted] must have been a doctor because [redacted] went out and did some consciousness checks and if I recall, well I won't get into where I can recall because I can't really can't. But I recall that I knew that when they did conscious checks they generally did different kinds. They did several sort of increasing rates of conscious checks. So I kinda knew what [redacted] was doing [redacted] was – [redacted] started out saying his name or something and shaking him. And [redacted] did one where [redacted] struck his eyelash and then the last one was [redacted] took [redacted] knuckles and rubbed them on his rib cage pretty strongly. And so the first conscious check [redacted] said he's not unconscious and [redacted] sat back down. He didn't look to me lie he moved though. So I don't know how [redacted] determined that. I don't know if he said something to [redacted] or what. [redacted] back was blocking but I saw no movement.

TROOPER GOTTSCHALK: Okay.

MR HADDEN: And then [redacted] sat back down and when [redacted] sat down he still had his eyes closed and his mouth was open like it was before so I just thought well, you know, whatever, I guess we wait longer. So they waited two more minutes and then [redacted] did it again and at that point [redacted] said he's unconscious and so at that point the Warden said something like – I think she just said well he's unconscious and then I assume that was sort of the key to begin introduction of the remaining drugs. And to be honest with you at that point in time I thought he might be deceased

because there was no movement, breathing, there's no respiration. I mean it was stock still. And like I said his [15] mouth was still slack and his eyes were closed. So anyway, again we began waiting and I don't remember how long it was, probably a minute, he mumbled something or made some kind of sound. And it didn't sound like a word to me. It just sounded like a sound someone might make if you try to wake them out of a deep sleep or something, if you shook somebody on the couch and they were sleep or something.

TROOPER GOTTSCHALK: Um hmm.

MR HADDEN: And I just – I remember thinking to myself why that's curious that you might get that after such a long period of time of nothing but, you know, I'm no doctor. I don't know about these things so I sat still and continued waiting. And then at some point he kinda did it again but this time he kinda raised his head up a little bit and – but the whole time his eyes were closed. He never at any point that I saw ever opened his eyes. He kinda would as, you know, time would kinda go on it was almost like he was trying to get up.

TROOPER GOTTSCHALK: Um hmm.

MR HADDEN: And that's the best way I know how to describe it. It wasn't as if he was in my interpretation he was in pain where he was trying to, you know, I don't know get out of them or escape or anything like that. Like I said his eyes were never opened that I saw. And he would murmur things

occasionally but again they were unintelligible words to me. I could make nothing out of them and I was trying really hard because –

TROOPER GOTTSCHALK: Right.

MR HADDEN: We've had previous instances where people's said my body is burning and all kinds of things, so I was trying to listen for anything that sounded like an actual word and I couldn't make anything out.

TROOPER GOTTSCHALK: How was the sound quality coming into yawl's – into the room?

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[18] MR HADDEN: Yes. Yes, I was out there with Bates and Mr. Bates and there were several, well I couldn't even tell you who they were. DOC officials out there. There were some security people and some other things.

TROOPER GOTTSCHALK: Okay.

MR HADDEN: And so at that point all of us sort of walked down the hall away from the direction they're gonna go and Bates had went around the corner but we all kinda just got out of the way because we we're like all these people are going to be coming out and everything. We just don't want to, you know, be trampled and everything so we went around the corner and we just kinda stayed there for a little bit and then a couple of minutes later the Director came around and said [redacted]

[redacted] And so we went back in and the Warden and the doctor were in there at that point and the Warden was, I don't know a good word, she just was a little – I don't want to say she was agitated or anything like that. She wasn't. She was just I wanna say a little distress. That's the probably best the [inaudible 27:44]. She wasn't crying or anything but she was visibly sort of shaken I guess is probably the best way to say it. And the doctor was standing there and [redacted] looked a little shaken too but [redacted] didn't seem, you know, appalled or anything as if, you know, oh my gosh, I can't believe this happened. And I recall the only thing [redacted] really said, the doctor said at that point was, you know, I've never experienced anything like that and [redacted] said something along the lines of I've never used this drug before [redacted] says I, I, I, I don't know what to say. And so at that point they said we could, I don't remember if they said we could ask questions or does anybody have any questions or whatever [19] and I just thought, you know, I may never see this doctor again. I don't even know [redacted] name. I've got to ask [redacted] a couple of questions so –

TROOPER GOTTSCHALK: Um hmm.

MR HADDEN: Even for my conscious or whatever, I've got to know

TROOPER GOTTSCHALK: Right.

MR HADDEN: Some answers. And so I pressed [redacted] pretty hard.

TROOPER GOTTSCHALK: Um hmm.

MR HADDEN: And I said is there any doubt in your mind whatsoever that he was unconscious when you said he's unconscious? [redacted] said no. No doubt whatsoever and there was no hesitation whatsoever in [redacted] voice. And I'm certainly no expert on people and emotions. I've questioned a lot of people over the years and [redacted] had no reservations or hesitations so in my mind whatever medical knowledge [redacted] had [redacted] applied it and [redacted] was happy with [redacted] determination. And then I asked [redacted] is there any doubt in your mind that he was – that he felt any pain after you called – determined he was unconscious? And [redacted] said, no. He felt no pain whatsoever. That's what [redacted] said to me. So I just thought those were the two things I was most concerned with. Beyond that I guess everything else would get sorted out as it does. So that was really kind of the end of it. We just kinda at that point – everyone kinda went back to their vehicles and we went back towards the main house and Tom had his cell phone with him. He received special allowance to bring it in. Unfortunately he had no reception in the H-Unit area cause it's like a bunker, so as soon as he gets out his phone is of course exploding. Everyone's calling him and he's talking to, you know, I don't even know, just people calling him non-stop and him calling people non-stop.

And we went around and then we walked over to the area where the victim's families were and he went in and spoke with the victim's families for a little bit and I waited outside.

TROOPER GOTTSCHALK: Um hmm.

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TRANSCRIPT OF RECORDED INTERVIEW

OF

PARAMEDIC/EMERGENCY
MEDICAL TECHNICIAN

BY

CAPTAIN JASON HOLT

AND

CAPTAIN PAUL CHRISTIAN

CASE NUMBER 14-0189SI

HELD IN THE TROOP Z HEADQUARTERS

ON MAY 23, 2014, AT 5:10 P.M.

IN OKLAHOMA CITY, OKLAHOMA

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[20] did not read anything.

CAPTAIN HOLT: Okay.

EMT: During the process of getting him ready for the – to the IV stick, he was very cooperative and I had asked him – I said are you a drug user? Were you a drug user?

And he said yes.

And I said are you right handed?

And he said yes.

I said okay. Your left arm is going to be the scarred one; right?

And he said if you will go right above the scars, I have a good vein. He said but I have been dehydrating myself for the last three days.

And I said, well, that makes it a little hard for me to make a stick.

And he said yeah.

And that was it.

CAPTAIN HOLT: So he – he made that statement to you?

EMT: Yes, he did.

CAPTAIN HOLT: Okay. Did you make any observations that would confirm that he had been dehydrating himself for that long, that

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[85] CAPTAIN HOLT: – before I forget, and if I don't ask you now I'm might. What do you mean by you don't think you had enough drugs? Just because you didn't have as much this time as what you've had in the past?

EMT: Yeah. Basically. Versed, I use it to sedate people when I'm intubating and putting the tube down their throat so they can breathe in the field. Well –

CAPTAIN HOLT: That's the first drug you're talking about?

EMT: Do What?

CAPTAIN HOLT: The first drug is – did you say –

EMT: The first drug.

CAPTAIN HOLT: Okay.

EMT: See I use that in the field in ambulance work. And you do .5 milliliter and that – that's a paralytic and it paralyzes them so I can get the – the tube in and the half-life of that is just – like ten minutes. And so they come back awake real easy, if you don't continue the drip or whatever. And I just don't – 40 should have done the trick and it may very well be the trick. But [86] because the IV had infiltrated or blown or got dislodged or whatever the case may be, it didn't work.

CAPTAIN HOLT: Okay,

EMT: Have you heard anything back on the autopsy –

CAPTAIN HOLT: No.

EMT: – as to what happened on that?

CAPTAIN HOLT: It's still – still going.

EMT: I would be really interested to find that out.

CAPTAIN HOLT: It's still going. It'll probably still be several weeks before – before we actually get that back from Dallas.

EMT: Yeah. In of course, it's – all I'm doing is speculating, But –

CAPTAIN HOLT: Uh-huh, I understood. I understand that. At what – at what point of the – while you're doing drugs 2 and 3, at what point is the execution stopped?

EMT: Well, we had the last syringe of drugs. There was 10 milliliters left in it that I – that I wasted. And I was taking

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TRANSCRIPT OF RECORDED INTERVIEW
OF
PHYSICIAN
BY
CAPTAIN JASON HOLT
TROOPER KEVIN LOGAN
CASE NUMBER 14-0189SI
ON MAY 27TH, 2014, AT 05:31 P.M.

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[16] [redacted] you know, to sedate a person,

CAPTAIN HOLT: Was anything ever said by yourself, the paramedic or any of the D.O.C. staff regarding what their plans would have been if you couldn't start any vein?

DOCTOR: No, I didn't know what they were going to do.

CAPTAIN HOLT: Okay. So you never heard that mentioned by anybody?

DOCTOR: No.

CAPTAIN HOLT: Follow-up?

TROOPER LOGAN: Yeah, I may and I got just a few questions and I may kind of jump around a little bit.

DOCTOR: Sure.

TROOPER LOGAN: Did you ever hear anybody – this is after you noticed that there's a problem, the warden closes the blind,

DOCTOR: Mm-hmm.

TROOPER LOGAN: Do you ever hear anybody say to stop the execution?

DOCTOR: No

TROOPER LOGAN: Okay, I think Jason kind of asked this, but, kind of looking at a little different time frame here. As you talked to the warden and you tell her there is a problem, how specifically do you do that? I mean, know you get up out of your chair, but do you walk up to her . . .

DOCTOR: I walked up to her and said, "there's something wrong," and I looked, that's when I pulled the sheet and looked, and told her, I said, "This is infiltrated." I said, "You're not getting," you know, "The medications aren't getting into the vein properly,"

TROOPER LOGAN: Okay. And they closed the shade?

DOCTOR: Right.

TROOPER LOGAN: And then at some point there, there's a lapse and she asked about lifesaving measures?

DOCTOR: Yes. She said, "Can you resuscitate him?" I think, I think it was the warden, I'm pretty sure it was, and I said, "do you want me to try?" I said, you know, "I, I'll try," but then I said, "But then we are going to have to take him to the ER." Then [17] somebody in the room said, "No we can't do that."

TROOPER LOGAN: So between that point and the time that you pronounce him, do you know about how much time has lapsed there?

DOCTOR: I want to say five or ten minutes. Like I said it was, I probably waited several minutes longer. Like I said he went into an agonal rhythm and just, just a thready pulse, but I wasn't willing to, to declare him at that point. He was unconscious, he was unresponsive, like I said. They weren't going to resuscitate him, so, I waited until he went into asystole and then I declared him.

TROOPER LOGAN: So going back to the femoral line, if you were in the hospital setting, you placed that in, would you typically look up and make sure you have a drip coming out of the bag?

DOCTOR: Yeah. We'll watch and see if you got a flow.

TROOPER LOGAN: Okay.

DOCTOR: Okay, and then you can watch the area around the catheter and you see if, you know, if you're starting to get edema underneath the skin which means it, you know, some of the fluid is

coming back up, you know, under the skin instead of going all directly into the vein.

TROOPER LOGAN: And in this case, do you ever see the bag, do you ever see the drip?

DOCTOR: Yeah we, like I said, initially [redacted] had bent the, the catheter, they had a problem [redacted] had to reposition it and then it started flowing.

TROOPER LOGAN: Okay,

DOCTOR: Yeah.

TROOPER LOGAN: So you visually saw that and saw that (unintelligible)?

DOCTOR: And you have to keep, you have to remember something, he got enough medication to make him unconscious. I mean, so, the medication was getting into there, a certain amount of it, at what point it stopped, don't know.

TROOPER LOGAN: Sure.

DOCTOR: But he had enough to make him unconscious and enough to actually to complete the execution.

TROOPER LOGAN: Sure.

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TRANSCRIPT OF RECORDED INTERVIEW
OF
PHYSICIAN
BY
CAPTAIN JASON HOLT
TROOPER KEVIN LOGAN
CASE NUMBER 14-0189SI
ON MAY 27th, 2014, AT 6:18 P.M.

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[4] TROOPER LOGAN: Did that ever take place?

DOCTOR: Yes.

TROOPER LOGAN: And that would be on the, so you get up one time, check him.

DOCTOR: Check him, he, he was not completely. He, he was, he still had a little bit of a response. So I said he is not. Sat back down. Tried it, waited a few more minutes and checked him and he didn't have any response.

TROOPER LOGAN: Did you guys go over or talk about any kind of protocol within the execution room, if there was any problems . . .

DOCTOR: No.

TROOPER LOGAN: That you would be aware of.

DOCTOR: No.

TROOPER LOGAN: And how that would take place.

DOCTOR: No.

TROOPER LOGAN: Okay. You mentioned before, I think you called it, excuse me if I get it wrong, Verset, Versed.

DOCTOR: Mm-hmm.

TROOPER LOGAN: Also known as . .

DOCTOR: Midazolam.

TROOPER LOGAN: Okay. You, you mentioned that Lockett didn't get enough of it, that enough of it didn't go in. What did you mean by that?

DOCTOR: No, I said, apparently. It's, it's a sedative hypnotic, okay. But it is also an anticonvulsant, so if he had enough of that medication in him, I wouldn't expect him to have any type of seizure activity.

TROOPER LOGAN: Okay.

DOCTOR: Okay. And they, I think they said they were going to give him like 20 mg. If that's the case, you know he shouldn't, he shouldn't have had any type of activity.

TROOPER LOGAN: So the movements that you saw, as you described . . .

DOCTOR: Shouldn't have, like I said

TROOPER LOGAN: Or seizures, so . . .

[5] DOCTOR: Like I said, if those were, and I think they were, okay. Then I don't think he got enough of the, of the Versed in him. It was enough to render him unconscious, temporarily, but then when the other medications were infused, and the other, and the You have to remember, Versed is a fairly short acting medication too, so it starts wearing off fairly quickly.

TROOPER LOGAN: So you say short, what's, I mean, short to me may be a different . . .

DOCTOR: It depends on the individual, 20, 30 minutes, It's, it can start wearing off very quickly, yeah.

TROOPER LOGAN: Okay. And that's.

DOCTOR: So that

TROOPER LOGAN: That's about.

DOCTOR: That's peak activity. Pardon?

TROOPER LOGAN: When you say 20 to 30 minutes, on how much dosage?

DOCTOR: Oh well, I mean if I give a person enough, obviously he is going to, you know. It depends on the person's metabolism first of all, okay.

Now if I give them enough to slow their metabolism, metabolism down, and slow their heart rate down, then they're not, you know, then it isn't going to wear off. But if he gets just a small amount, and his metabolism is working properly. You know, he is going to start, you know, he is going to start coming out of it, like I said in 20 to 30 minutes.

TROOPER LOGAN: Okay, So talking about the movements of, of Lockett, since we are talking about that briefly here, can you tell me about from the, when the execution starts, you had mentioned you could see when the first drug was pushed, because, because you could see

DOCTOR: I could see it flowing.

TROOPER LOGAN: Pushing,

DOCTOR: Right

TROOPER LOGAN: Through the line . . .

DOCTOR: Yeah, I was watching it to see if it was flowing,

TROOPER LOGAN: So when that starts, when you, when you see that,

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